A PLAIN GUIDE

TO

INVESTMENT AND FINANCE

A Plain Guide to Investment and Finance

IN TWO PARTS

PART I—HINTS TO INVESTORS

PART II—AN EXPOSITION OF FINANCE

BY

T. E. YOUNG, B.A., F.R.A.S.

LATE LIFE MANAGER AND ACTUARY OF THE COMMERCIAL UNION ASSURANCE COMPANY; LATE PRESIDENT OF THE INSTITUTE OF ACTUARIES; LATE PRESIDENT OF THE INTERNATIONAL CONGRESS OF ACTUARIES; LATE CHAIRMAN OF THE LIFE (ASSURANCE) OFFICES' ASSOCIATION; MEMBER OF THE ACTUARIAL SOCIETIES OF FRANCE, BELGIUM AND AMERICA

THIRD EDITION

REVISED, EXPANDED, AND RE-SET

LONDON

MACDONALD AND EVANS

29, ESSEX STREET, W.C. 2

1919

Printed in Great Britain by
Richard Clay & Sons, Limited,
Brunswick St., Stamford St., S.E. 1,
and Bungay Suffolk.

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PREFACE TO THE SECOND EDITION

The evidence which has reached me, since the first edition was published, from readers and other sources, has still more impressed upon me the need of a plain, practical, and direct guide. The iteration and reiteration, which, in Part I, I sometimes felt impelled to adopt, have found a response, as this evidence testifies, in making many of my readers think—the prized result which recompenses a writer for all his toil. I am thankful, accordingly, that, in the expression of my counsel, I was led to discard a more showy and elaborate, but less teachable, style. For nowhere, unhappily, is more vividly perceivable than in ordinary investing the pungent force of Coleridge's aphorism that truths "are too often considered as so true that they lose all the power of truth, and lie bedridden in the dormitory of the soul, side by side with the most despised and exploded errors." No better service, then, can be attempted in any sphere of work, however feeble its event, than the rescue of truths from the state of truisms into which, by easy and unthinking acquiescence, they have degenerated, by setting them in the freshness of actual experience. A chapter has been added, for the benefit of the student, upon the significance and use of Index Numbers in commercial and financial comparisons for practical guidance in action.

The attention of the student is particularly invited to the explanatory and illustrative Notes which have been appended to this edition, and to which references are made in the text.

A PLAIN GUIDE TO INVESTMENT AND FINANCE

INTRODUCTION

THE object of this book is simple and direct. All people need to invest their savings from time to time. They are not in the way of knowing, from professional experience in finance, what securities are best worthy of attention at certain periods; and what should be avoided, and why. Most probably they have not available the skilled advice of competent persons; and they themselves possess but a moderate and merely general knowledge of what forms a sound investment[1] in spite of fluctuations of values, and of partial or extensive panics, or in what manner its soundness or inferiority should be discriminated.

This book is an attempt to furnish practical guidance on these questions, and is addressed to the ordinary investor, who shuns speculation, and simply wishes to place his money in securities which, so far as foresight and caution can provide, may be reasonably free from frequent anxiety in the holding, securities, to use a homely phrase, upon which he can sleep in comfort, with the feeling that his savings are safe in their keeping.

A brief reference to the course pursued in the book will show the kind of map it has attempted to draw for the investor's

[1] From the Latin, *in*, in, and *vestire*, to clothe: then, to cover generally, as with a garment; and hence metaphorically applied to capital, which, so to speak, instead of being kept bare, is covered and protected by a security. (*See Note*, p. 4.)

direction and instruction. The book is divided into two parts. In Part I hints are furnished for the help of the investor before he decides upon an investment, and during the continuance of his holding. Hints are too frequently provided in such general terms as to be practically useless: an effort has here been made, founded upon experience, to express and enforce the suggestions in a concrete and workable shape. In times of great fluctuations in prices, the investor frequently loses his judgment, particularly when a general feeling of want of commercial confidence occurs. No emotion spreads and deepens more rapidly and unreasonably by contagion than fear when it is shared with a multitude. The apprehension aroused in each person is intensified by the similar feeling experienced and expressed by his neighbours, and his own apprehension reacts by expanding and confirming theirs; feeling then suppresses thought, and panic takes the place of rational order; losses, which a little calmness and reflection would have saved, are incurred by the reckless and reasonless sale of securities, as though the end of all stable ventures had arrived; and foolish sales engender sales still more foolish. It is probably not far from the truth to affirm that greater losses of money have arisen from the absence of sobriety of judgment produced by meaningless panics than from injudicious investments themselves.

Part II, then, is intended, by showing the *causes* of these changes of value, and the periodical character of their occurrence and disappearance, to enable the investor to maintain his steadiness of mind, and thus to save his money. Nothing so fully allays terror and fearful expectations, with their unhappy consequences, both in financial affairs and in the ordinary experiences of life, as a simple and rational explanation o causes, and the remembrance of the fact, of which all history is vocal, that these causes are not exceptional and peculiar to any stated time, but appear and vanish in almost orderly succession.

Other chapters deal in a similarly practical manner with subjects connected with securities and finance generally, which the investor should be acquainted with in an elementary way; with the prudent distribution of his savings over various classes of investments, of which examples are supplied; and with the

nature of different securities, and the mode of assessing their value and fitness.

But it is obvious that no set of rules or suggestions can be mechanically provided to supersede the investor's personal examination and thoughtfulness. If he devote attention to choosing the stuff and fit of his clothes, the same personal (and not delegated) degree of thought and interest at least should be bestowed upon the serious question of the disposition of his funds, however small. Investments are matters to be pondered over, not to be determined, as they so frequently are, on casual advice, hearsay statements, the mere fact that a friend has selected a particular security, attractive but delusive advertisements, or often on no valid reason whatever.

This book necessarily assumes that, as in other affairs of his life, the investor will use his own intelligence, especially in his selections, and its end is to help him in this direction. Not the wisest book, again, can supply specific guidance for every contingency and set of circumstances affecting securities that may occur; its function is necessarily limited to showing the investor how to regard and estimate the events which may arise as the reason and course of any action it may be expedient to adopt.

It is so vital to enforce upon the investor the fact that no rules can supplant individual care and judgment, that throughout the book I have insisted, almost to weariness, upon the indispensableness of this personal element. In many instances, no doubt—in the case, namely, of persons untrained in the study and discipline of business—the capacity of judgment will be defective owing to the unavoidable absence of specific financial knowledge, and I have done my best, accordingly, to act as a helpful mentor to them in their purchases, holdings, and sales.

Part II appeals to a wider audience, and provides careful information and guidance respecting the money market and finance generally, adapted to the student as well as the investor.

The book, as a whole, professes to be a more comprehensive and practical treatise, in an elementary form, than any volume upon the subject which has already appeared.

Note

The term *Finance* affords a curious specimen of the irrelation between the etymological origin and the current application. Its root is ultimately (through the French) the Latin *finis* or *end;* and the present sense appears to be a coalescence (and general extension) of two obsolete meanings which it had acquired in the thirteenth and fourteenth centuries of, respectively, the "payment of a debt," and a "stock of money or goods." In the former application Chaucer causes one of his characters to say, "Dethe is my fynaunce,"—alluding to the ancient notion of death as the payment of the debt of Nature.

PART I
HINTS TO INVESTORS

CHAPTER I

HOW TO SELECT

THESE suggestions are lessons derived from a long and varied practical experience in financial affairs, and apply universally. It is, however, to be remembered, as I have pointed out and cannot too frequently repeat, that suggestions, however broadly based and intrinsically sound, cannot, from the nature of the case, dispense with the thought and intelligent scrutiny of the investor himself. Fewer failures in life would occur, in finance and in the cultivation of character, if the suggestions of others were accepted, not as rules for rigid following, but as warnings to avoid errors, and as hints to guide judgment and effort in the right direction. The difficulty, moreover, of the announcement of rules for others lies in the fact that the ready or instant powers of decision which men often show who have been practised in monetary affairs (and indeed generally) are in reality the consolidated products of lengthened actual experience—habits of mind slowly and laboriously created—which, in their highest form, present the appearance of intuitions incompetent of explanation or of expression in formulæ, and incapable of transfer. All that a scheme of rules can really effect is to define the *modes* of regarding the different classes of securities, and in this way to aid the training of the judgment in clearness and promptitude—strengthened and enlightened, as it will be, by personal experience and trial—in forming conclusions, provided that judgment be spontaneously used, and be flexible to education. An exposition of the right ways of estimating securities may yet, not inaptly, be styled a set of rules, since rules, in the customary meaning of that term, signify a series of directions for the attainment of any required object, and hence presuppose not simply a desire for the object,

but also the capacity of deciding, however incomplete, upon its worthiness.

It is true that in some departments of organised finance and in the sagacious selection of many securities, special knowledge, education and ability are needed, but it is no less equally true that the sound and profitable investment of money is competent to qualifications of a much humbler order. Under the delusion that financial operations generally are too abstruse for any but the expert to attempt with a probability of success, many excellent opportunities of making money by investment pass unappropriated by. The common sense, prudence, deliberation, and care, which we devote to our ordinary affairs, form the qualities which universally succeed.

When the important firm of Overend Gurney & Co. failed disastrously in 1866—a firm originally founded, and for many years conducted, with marked sagacity and knowledge—Mr. Walter Bagehot, one of the clearest and sanest financial observers and critics, felt compelled to comment that, in the latter stages of its administration, so little regard had been devoted to the most ordinary caution and intelligence that "one would think a child who had lent money in the city of London would have lent it better." In the "Collie" frauds, again, of 1875, a mournful revelation was made of the careless manner in which even banks and discount houses of repute sometimes worked. Bills for an enormous amount in the total were discounted (or lent upon) without any adequate inquiry or information respecting the solvency of the acceptors (that is, of those who had agreed to pay the bills on maturity), and without ascertaining whether there really existed any valuable goods as the warrant for the creation of the bills (or debts). Haphazard and unintelligent routine had usurped the place of alertness and business aptitude, and it was shrewdly inferred that the lenders (or purchasers of the bills) had been so overladen with deposits of money by their customers that they preferred to risk advancing upon dubious or unascertained security, rather than permit their funds to remain idle.

In the light of this lesson we may well start here with a few marks of guidance: (1) Never remit careful thought in what we are doing. (2) Never assume that success once

achieved will continue automatically without the persistent use of the same qualities of prudence and intelligent judgment by which the original success was produced. (3) Never, whether dealing with bodies of men (like governments, boards, or corporations) or individuals, forget that *character* is as essential as financial position. (4) Do not invest by chance simply because you happen to possess money which you must use productively: be patient to wait for a suitable time. And to these hints may be added—(5) Keep to the class of investments you have carefully worked at and gained experience in, and consequently know; and (6) Only after—and not till then—your judgment and knowledge have been formed and disciplined in some line of investments, venture into wider regions of finance.

A large and varied number of securities—amply sufficient for the ordinary investor—can be chosen without difficulty, and in respect of these I purpose giving suitable hints for their selection. In some cases—those outside the usual range of what are termed "trustee" investments,[1] though even in this class, as we shall see, discrimination should be used—advice will occasionally be desirable; and the question then arises, whence that advice should be sought?

1. As a preface to the following remarks I desire to premise that I have the highest respect for bankers and stockbrokers as an honourable and capable class of men, and when I add

[1] "Trustee" investments. A word of practical value may here be added. In pursuance of the Rule of the Supreme Court (issued in 1888), the Colonial Stock Act of 1900, and the Act of Parliament passed in 1893, trustees are authorised to invest their fiduciary funds in certain specified securities. These enactments protect the trustees if any depreciation or loss should occur; but it does not inevitably follow that the investments prescribed are all of the highest and most acceptable character. They were selected by persons whose judgment was necessarily fallible, and whose foresight was naturally limited; and any particular investment fully worthy of selection at the time of authorisation by the Acts and Rule may, in the lapse of time, forfeit the right to a standard position of security. No reflection whatever is intended to be cast upon the judiciousness of the stated category of suitable stocks: all I desire to express is, that the investor should not simply be guided by the List as an infallible rule, but should exercise discretion and judgment in making a selection from it.

that they are not usually the most appropriate and helpful persons to consult, I base my statement exclusively upon the fact that their particular (specialised) training fails to qualify them for advising upon securities such as the investor whom I am addressing desires to secure and retain—securities, I mean, which may not always be readily saleable—the investor rather looking, as a rule, to investments which, thoroughly sound, are not subject to incessant fluctuations, and hence preserve a more stable level of value.

2. The banker's chief and legitimate aim in his business, and the specific mode of his training, is the readily realisable form of investments, so that if a sudden and large demand should be made upon the bank—a "run," as it is termed—for coin (that is, the return of the deposits of money made by his customers) he may be able to satisfy it by selling securities; hence he has a natural and proper tendency to restrict his investments to those which can thus easily be disposed of. If a time of want of credit or trust in respect of a particular bank or of banks generally should occur, all the customers, or a large section of them, might simultaneously, under the stress of fear, require the deposits which they had committed to the keeping of the banks—and which the banks would lend in advances to other customers,—and hence it is needful that their Stock Exchange securities should be of such a character as to be immediately convertible into cash (*i. e.* sold) in order to meet the call.

The advances to customers, again, which constitute an essential part of a banker's business, are very limited in their duration, so that the notion of brief and ready engagements pervades the whole of his operations. It may happen, too, that no distrust is felt about the bank's stability in itself, but if a general want of confidence is produced respecting the solvency of commercial firms and their power to fulfil their contracts, the same demand may be made upon the banks, since the public are afraid that their deposits may have been lent to the people they doubt, and thus prove unsafe. Hence a widespread claim against banks—though in no degree originating in distrust of the banks themselves—for the refund of moneys deposited. (It is irrelevant here to allude to the effect

upon the saleability of the bank's securities entailed by general commercial discredit which would necessarily affect the exchangeability of such stocks and shares.) From his professional training, accordingly, the banker's habit of mind is to concentrate attention mainly upon the prompt sale of an investment, and we all know how difficult it is to divest ourselves of fixed modes of regard and to adopt a different view. What the prudent and far-seeing investor requires is not so much the quick conversion of his security as its permanent solidity and a reasonable return of interest.

3. The training of the stockbroker is even less adapted to render him a judicious counsellor. His business is to note the passing changes in the market for securities; to know the views of the jobbers with whom he deals; the feelings of hopefulness or depression which find expression in prices; the nature and extent of speculative operations which largely influence the course of values that prevail from time to time, so that when he receives an order to buy or sell he may be able to seize the apt occasion for the transaction—hitting upon the highest price if his client be a seller, or the lowest practicable price if his commission be to buy. His concern accordingly is entirely with the present or closely immediate moment: he is not so much concerned with what the investor really wants—the security which is the most likely to possess a permanent level of value or an increasing tendency, independent of the fluctuating phases of the day—as the price that can be secured which will prove most advantageous to his client. For, generally, the more easily a particular form of investment can be sold the less is the return which it yields.

The reader will carefully remember my qualifying statement that these observations upon the preceding sources of advice are entirely general, and without invidious reflection; they apply solely to the effects (constitutional, I might term them) of practical and appropriate training, inherent in the respective pursuits; for obviously there are very many bankers and brokers who display in the highest degree—far superior to any ability and experience to which I can make but a humble claim—the wisdom and capacity of scrutinising and assessing a security in a manner adapted to the investor's desires.

4. On the whole, the soundest guide is a shrewd City man, as he is termed: a man of general commercial experience and aptitude; who does not make financial affairs (in the Exchange point of view) a main concern; who possesses, however, a sagacious working knowledge of them: and can accordingly form a judgment which is free from any specialised form.

5. But here it is well to repeat that it always proves the better course, where it is possible, to avoid advice. Difficult and complicated kinds of security obviously demand competent and capital skill, but the course of the ordinary investor should be limited to the broad highway only, whence these tangled bypaths diverge. It is usually difficult to discover a really serviceable adviser: even if that rarity be comprised within one's acquaintances, it is somewhat burdensome upon him to keep troubling him with one's wishes, hopes and fears; to impress his time and skill frequently into service; and to suppose (as is necessary, if his guidance is to prove competent) that he can retain in memory all one's investments and their relative amounts in order to effect a judicious distribution; while if, under a sense of compunction, we accept advice from one person at one time, and from another on a different occasion, we shall simply become distracted, erratic and confused in our investments (since all counsellors vary in their views and predilections), and probably some loss will mark the diversity of counsel.

To ensure successful issues in finance or in any department of human activity, a uniform and consistent system of procedure is imperative. A loss, moreover (sustained in the security which has been recommended), is not infrequently attributed to the adviser, and not to the changing chances of events which even the most prescient may fail to forecast; for human nature is not generous in judgment when money disappears, and a rupture of friendship may result. Endeavour to rely upon yourself; study the prescribed ways of rightly viewing securities: restrict yourself at first (if not entirely) as I have counselled, to the simpler descriptions of investment in which you have acquired experience and educated your judgment; and never venture beyond the well-beaten track until, not merely knowledge and perception have matured, but until

your funds are sufficiently large to sustain, without inconvenience or stress, a probable loss.

6. A sound piece of advice may be thus expressed: When you have taken advice, do not take it. I have intentionally adopted a form of statement which looks contradictory, for the purpose of thus calling special attention to its importance. Men differ so considerably from each other in their views, their desires, their feelings and purposes generally, the ends they aim at, and (last, but far from least) the proportion between the total sum they possess and the amount of the particular investment under examination, that no one in advising can, with every genuine intention, place himself completely and exactly in the condition of the person who is seeking advice. Hence the significant principle—running through all modes of action—that advice should be accepted, not necessarily to be strictly followed, but as a part only of the data—the facts and reasons—on which the investor's own decision should be based.

In mathematical inquiries, where many observations of a fact are made of different degrees of exactitude, the observations are, as it is termed, "weighted," so that where one has been obtained under superior conditions of accuracy than another, the former is counted as (say) two observations in estimating the correctness of the aggregate result. Each piece of counsel received should be similarly adjusted—the advice of a particularly sagacious friend being reckoned, in proportion to his skill and knowledge, as worth the recommendation of two or three other friends. In this way we prepare a tabular synopsis of advice and its indications, which, conjoined with our own inquiry and deliberation, will furnish a valid guide.

The well-known Benjamin Franklin adopted a wise plan (which he oddly described as Moral or Prudential Algebra) in the settlement of questions which presented difficulties of assessment: he ranged the individual reasons in favour of one course in a column, then those adverse to that course in an adjoining column; two of the reasons in the one column might be equal in their validity and impressiveness to one in the other column: the three then might be cancelled: and thus cancelling and balancing one against the other in this fashion, with

thoughtful consideration, one reason alone will, generally, finally remain on one side or the other as the determining inducement to action. If the columns ultimately show a series of cancelments only, it is evident that action would be unwise; if the surviving reason, which stands alone, should impress the mind strongly, action in its direction is rational; if the influence which it exerts be weak, wisdom refrains from change.

This method may appear to be complicated and troublesome, but a slight trial will demonstrate its value and readiness of working; and in all cases where a definite judgment is attended by unusual difficulty, its guiding service is invaluable. For in every act in life the ultimate decision should form the spontaneous embodiment of the actor's judgment alone, aided, it may be, but aided only, by the subsidiary considerations he may collect.

7. Never be influenced by circulars or advertisements issued by financial persons or firms, no matter how attractive, and no matter how glowingly, as is the customary practice, they hold out promises of a soundness superior to the safest Government securities, accompanied by a rate of interest equivalent to that professed by the most hazardous ventures. Their value exists in inverse ratio to their allurements. More money has been lost by listening to these delusive proposals than any system of numeration can compute; and the extent of loss can only be discovered when we have been able to calculate the number of foolish people in the world. Their circulation should be limited to lunatic asylums. When you see such advertisements, or receive a circular of this nature, close your eyes resolutely in the one case, and use the waste-paper basket immediately in the other. This is fundamental and universal advice. The aspect, of course, is different where a respectable bank or broker sends you a prospectus of a loan which, as agents, they are issuing: such a prospectus will be studied in the light of the general hints furnished in this book.

8. Never, again, invest in a haphazard way: do not purchase or sell simply because a newspaper exalts or depreciates a particular security: or because you chance to hear an enthusiastic account from a friend; or because a friend or relative has just selected a specified investment. What suits

them may not necessarily be appropriate for you: your circumstances and views may differ from theirs; and a hasty and undeliberated imitation may terminate in a lamentation of loss. Simply use their action, if they be judicious persons, as a help to decision, proportioned to their intimacy of knowledge and sobriety of judgment. Better the expenditure of thought and trouble at the commencement of an investment than the waste of money and upbraiding memory at the close.

9. An adaptation of an ancient adage may fitly form a final injunction. Take care of the Principal; the Interest will take care of itself. If the attention be always vigilantly fixed upon the safety of the capital, you will never be tempted by the attraction of a delusively high return, by which the Integrity of the Principal would be jeopardised.

CHAPTER II

WHEN TO SELECT

SOMETIMES the choice of time is not possible or is inconvenient: funds must be rendered productive with promptitude whatever the state of the money market may chance to be. If prices are low no difficulty arises; if they be high it may be quite inadvisable to purchase, since the value may be really exceptional, and a loss consequently ensue on a subsequent sale or on redemption. Hence, in the latter case, the proper course would be to make a temporary deposit of the money with a solid bank or discount house, pending the advent of a more propitious time for definite investment.

The prices of securities rise when money is cheap (that is, when loans can be negotiated in the ordinary way at a small cost in interest), and at those periods accordingly the return allowed by banks upon deposits will be low. For when money is "cheap," as it is termed, a superior return can be secured by investing in securities, than by the customary modes of advances, until the rise in the values of stocks and shares (induced by the increased demand for them at such a time) attains a point where this inequality of "yield" ceases to exist: for, of course, the higher the price paid for a stock which bears a fixed rate of interest the more reduced becomes the percentage of income derived. Assume that a person can borrow £100 at 2½ per cent, and can purchase a stock bearing 4 per cent interest at par, that is, for £100. Assume, further, that the lender of the money requires (for safety) a margin of 10 per cent upon his advance. The borrower then, for the purpose of providing this margin, buys £110 of the selected stock (thus investing £10 only of his own money); on the £100 he pays £2 10*s*., while the investment yields him £4 8*s*.; so

that he realises a profit at the rate of £1 18*s*. per annum on his actual £10 invested, or 19 per cent. As many hunters of fortune will endeavour to obtain a share in this advantage the price will rise until practical equivalence between the two rates of remuneration be reached: the speculator will sell at the increased price, discharge his advance and realise a profit. (The case here cited as part of the trade of speculation is furnished, not as an example to imitate, but simply as an explanation of one of the modes in which an advance in the value of stocks can be artificially and fictitiously created—fictitiously, I mean, as not determined, in the operation I have described, by their intrinsic merit as embodied in a genuine demand.)

It will frequently be found, as has been said, that at a period of high prices of securities any funds awaiting investment can be best utilised for the time by deposit, but as deposits do not constitute a fitting form for the disposal of money for any lengthened time, the investor, if the continuance of excessive values appears to be likely to endure, should turn his attention to lending upon the mortgage of houses and shops.

The return from these securities at such an epoch as that which we are now surveying will not be large, but it will be superior to the rate granted on deposits. This consideration is mentioned here incidentally only, as it will formally claim our attention in a succeeding chapter.

It is needless to add that this time of high prices may afford the opportunity for an advantageous sale, provided sound reasons induce the investor to adopt this course, and not simply the desire to realise a passing profit; frequent selling and rebuying mean the speculative habit of mind, which, if encouraged, must ultimately conduct the investor to misfortune. An explanatory remark may here be interposed. Assume that a 4 per cent stock (redeemable at par, or £100, in twenty years' time) has advanced to the price of 105; and the question is, whether an investor should purchase at once or temporarily place the purchase-money, which is meantime idle, on deposit at 3 per cent. The 4 per cent at 105 signifies an actual return of £3 16*s*. 2*d*. per cent, so that at first sight it would appear that by preferring the investment a gain of 16*s*. 2*d*. per cent per annum would be secured.

But since on the redemption or repayment of the stock a loss of the £5 will ensue in respect of each £100 so discharged, a sinking-fund for protection against that event must be included in the consideration; and in the present instance the annual fund requisite is 3*s.* 9*d.*; hence the net return is £4 less 3*s.* 9*d.*, or £3 16*s.* 3*d.* per cent, which gives a net annual income of about £3 12*s.* 8*d.* per cent, or 12*s.* 8*d.* per annum above the deposit-rate, instead of 16*s.* 2*d.* Where time can be summoned into service before deciding upon a purchase (or sale)—and the importance of the question of time on all occasions of investing and disposing, that is, the power and convenience of waiting for favourable changes, cannot be over-computed—the golden rule is this—

Buy before a rise in value; sell before a fall. This aphorism is worthy of a detailed attention, and may also be enunciated in the equivalent form: Act in the contrary way to that in which investors generally are acting at the time; that is to say, never buy when many are buying, but sell; refrain from selling when many are selling, but buy. Or we may thus phrase it: When people are decrying a security, buy, as a rule; when they are generally exalting it, as a rule sell. The dictum, of course, implies the permanent existence of foolish people and sagacious people, since if all investors adopted the maxim it would necessarily cease to possess a meaning, though, even then, sagacity would become, like a thermometer, marked by degrees. But any speculation upon the possibility of a general state of wisdom can evidently wait. There is a contagion of hopefulness as well as one of depression; times when we fail to see things as they really are, but as they are shaped and modified by our fancies, fears and hopes; under the distorting influence of desires or aversions we form mental pictures which fail to portray the originals, for the "pathetic fallacy" of Ruskin is universal, and this abnormal condition of mind, like some physical ailment, is, as the phrase goes, wonderfully "catching." When a lead is set, probably from no valid cause, in the direction of favour or disfavour of some particular investment, multitudes will irrationally follow to secure a portion of the fancied benefit, or escape the imagined loss, and thus aid in augmenting or depressing the value

against their own interests. But the wise man remembers that in all human affairs no rise or fall can be continuous and without stay; success must follow failure, and failure, success, or neither could exist, and the descriptive terms, therefore, would become meaningless. The region of finance, like the phenomena of Nature, is equally subject to a rhythmic order.

No security, obviously, from the nature of the case, can ascend or descend beyond a limited stage, the end of which (if it be an investment of any value) is marked by its yielding a rate of return about equal to the general remunerative rate; and the watchful man accordingly sells or buys as it appears to be verging on the limit of its ascent or fall. If the general rate of interest in sound securities be 3 per cent, the extreme points of value of an investment are indicated by its yielding this rate, taking of course into account any premium or discount (that is, the excess beyond or defect below the amount at which it will be redeemed, if repayable, or, if shares in a joint stock company, the sum paid up per share).

This golden rule has an admirable sound: but it is futile unless it is capable of being embodied in some practical workable shape. For all general rules are necessarily somewhat indefinite in character,—being deduced from concrete individual instances, whence all irrelevant elements have been removed; and the application of them to actual cases, though never completely exact, furnishes the test of a man's superiority of sagacity and discriminate judgment. An explanation (so far as a decline in price is concerned) has been supplied by an author of ability, to the effect that when a person has been ill, the only way in which it can be discovered that he has passed the worst, or critical stage, and has started on the improving period, is the indications shown of his getting better. But this is a mere analogy; useful as a general *illustration*, but idle as a working criterion in other spheres of observation.

Analogies are constantly leading us astray, by being used as arguments in place of pictures, and the transfer from experiences in one department of thought or activity to another region with different phases and conditions forms one of our besetting sources of error. The truth must be gained in the

set of facts in which it resides, and concrete illustrations in more familiar avenues of knowledge simply perform the function of enabling the truth to be more clearly perceived and comprehended. Analogies almost invariably limp on one foot or the other, and thus fail to bear us steadily and comfortably along. In the preceding illustration the very point at issue is assumed,—the existence of the clever detector of signs (like the physician), so that for the ordinary observer the analogy of disease is helpless.

Can, then, some pertinent interpretation be devised by which the ordinary man can detect, with reasonable exactness, the point when the possibly highest ascent has been attained, or is being attained, with the consequent time for sale, and the approximately extreme depression which suggests the advantage of a purchase? This can only be attempted with approximation; and the right time will be grasped or lost according to the vigilance and knowledge of the spectator. The subject is complicated by the consideration that a fall or rise may exclusively be due to passing and temporary causes, and be in no way indicative of a sustained cause of movement.

It has been proposed that the monthly (middle) prices for a period in the immediate past (of the investment under inquiry) should be noted, when the *average* price can at once be deduced from these records; and when, in the near future, that average price is being passed upwards, the time for thinking of selling has arrived, while this middle point indicates the approximate time to purchase as the present prices tend to fall below it. Two or three years at least should be employed in this record of prices for striking the average, in order to allow adequate time for the operation of all causes of inflation and depression, and thus secure an average datum of a fairly representative nature. A statement of quarterly prices (to save labour) may be reasonably used,—the urgent desideratum being that the survey of the past (which we thus constitute the guide to the future) should include a sufficiently long experience to express the effects of all the varying influences which affect prices. In reality, for the genuine indications of an average, a term of ten or eleven years should be chosen,

since, looking to the course of what is named a cycle[1] in commerce and trade, this time allows that extent of period (as repeated investigation discloses) for the presentation of the sequent (and recurrent) effects known as Depressed Trade, Healthy Trade, Excited Trade, with the culminations of a Bubble (or fictitious prosperity) and Collapse.

This application of the rule is necessarily somewhat rough, for the several quantities (prices) included in the survey, and used for the formation of the guiding average, should first be obviously "weighted," that is to say, each price of sale and purchase should be multiplied by the amount of stock thus dealt with, in order to assign due influence, to their respective effects upon the average, deduced. But such a proceeding would, in practice, be prohibitive of adoption. Another plan would be (though congruent in principle) to exhibit the series of successive monthly or quarterly values over the ten or eleven years (or the adequate period selected), and to draw a line through the several figures. A rough curve would thus be produced, with many and curious twists and variations of outline, but in general, and broadly, it would be perceived that there is a point where the curve begins distinctly to ascend continuously (notwithstanding small intermediate irregularities in the progress), which indicates the spot at which a sale should be considered, and a point also whence it commences

[1] A cycle (or circle) simply means that, however fluctuant be the occurrences of events, the course of commerce, of trade, of prosperity and adversity, of high and low prices exhibits a fairly regular order, and that this order tends to assume the recurrent and symmetric shape of a circle. So that the series of experiences, starting at any point on the circumference of the circle, proceeds successively through definite phases, as it travels, until it reaches the point of origin again in the same phase as that in which it began, when a corresponding career recommences, and so on *da capo*. This general uniformity of experience in financial and other facts is the expression of the uniform and recurrent modes of men's hopes and fears which persist through the ages, and, examined more closely, is simply the repetition in this special region of the inherent tendency to Rhythm in Nature. Assume that we begin our observation of the financial course at the point in the cycle where prosperity and high prices exist, we shall (however frequently we follow the circle's rotation) pass through the same stages of related vicissitudes until the revolution brings us back again to the condition of prosperity, as a goal from which we proceeded as a starting-point. And so similarly for other times of departure.

to descend definitely (with minor interposed breaks), which shows the time when a purchase should be contemplated. The foundation of the rule is sound enough; proceeding, as it does, upon the principle on which the predictive power of science, and the conduct of transactions which rest upon the uniformity of human motives and action are based— that the future will reproduce the past, at least in its main and essential features.

As is the fate of all wide generalisations—a fate proportioned to their largeness and importance of scope—it is the concrete application that bewilders. The practical modes of decipherment and expression which have been expounded involve considerable care and labour, but once the scheme has been attempted subsequent addition of records is easy. And all things worth doing are worthy of the trouble and thought they involve. The exposition of the general subject would have been defective without a reference to this radical rule: but for the ordinary investor a few particular observations apply—

1. Never sell for speculative purposes, but only when it is necessary.

2. If the latter event occur, notice from the papers if the price is day by day tending to rise, and, where possible, consult a competent and impartial friend; but, best of all, for a quiet mind and a sense of safety in your dealings, restrict your investments to those which show only a limited range of fluctuation; determine when you purchase to be unalarmed and unaffected by changes of value, and retain what you have gained. All rules may at times be wisely broken, and, of course, an unusual ascent in value may occasionally occur, where its very exceptional character may indicate a uniqueness of condition which will not probably return except after a prolonged interval, and in such an event it would be injudicious and illegitimate to refuse the offered chance. But the counsel yet holds good that securities, carefully chosen, should be permanently retained, both on the ground that changes up and down must pursue each other from time to time, and on the more important ground, from the point of view of the usual investor, that frequent changes to snatch a

profit develop the speculative spirit and find sooner or later their natural end in a realised loss.

"Unstable as water, thou shalt not excel." I have known many speculators—men, I mean, who make it a business to be minutely watchful in catching at profitable chances in stocks and shares but the material wealth which occasionally, though rarely, comes to them is usually accompanied by the loss or diminution of that finer form of wealth which consists in serenity of mind, contentment of spirit, and the cultivation of more excellent and enduring qualities than the quest of gain. Hence I may repeat in summary the main considerations for the guidance of the ordinary investor.

1. Observe the rule as far as you can in settling the time for purchase and sale.

2. Do not make the exact and laborious inquiry which has been outlined if you find it difficult and uncertain to adopt, but if, as I have stated, you observe or discover that many people are exalting or buying a particular security (of the class to which you should restrict your ventures), then has arrived the time to sell, if a sale must be attempted; and contrarily, the period for purchase is at hand when many persons are selling or decrying the investment in question. The thoughtless rush of the multitude in either direction is indicated by the record of transactions.

3. Do not keep frequently selling and rebuying, or attempting to seize the transient advantages of the changing market prices. The speculator's fate is then likely to be yours, and a reproachful memory of loss. Select carefully and with deliberation, and keep your investment, as a rule, steadily; this is your sovereign guide.

4. All things change and show the aspects of good fortune and evil, even after the most judicious selection. The prudent investor must sometimes sustain a loss in patience and fortitude, and utilise his mischance as a warning beacon for his future ventures.

CHAPTER III

WHAT TO SELECT

MOST investors possess their individual preferences for different classes of securities. Some favour Government Stocks, with the resources of the nation as their protection, and accept this high order of security in compensation for the small return of interest; others prefer mortgages upon real estate, lands and buildings; some, again, incline to commercial and industrial undertakings, or those which are concerned with supplying the material wants of people in the form of articles for conversion into manufactured products, or the resulting products themselves, or the production of articles which the personal requirements of individuals demand.

This diversity of taste suggests an important practical hint, that, namely, of the distribution of the investments over different classes and kinds of securities. If an investor's savings be confined, exclusively or largely, to one description of investment, or to two or three only, he sustains the risk of depreciation or loss in *all* his holdings at one and the same time. If, for example, the investor practically restrict himself to British Government Stocks, and a war become imminent, or grave international difficulties occur, the value of those securities immediately falls, partly from apprehension of those events rendering necessary a further creation of Government capital for the provision of the material requirements which will ensue; (the supply of such securities being thus augmented and thus disturbing the equilibrium between the supply and demand which previously existed, the value will descend). Thus, in the case supposed, the *whole* of the investor's holding will suffer depreciation without any concurrent compensation being afforded by the simultaneous improvement of other stocks in which he should have also invested. And, again, if

the investment be exclusively or almost exclusively limited to railway securities, and electric traction, in a form adapted to continuous and heavy carriage, appeared to be practically feasible in consequence of some invention, he would sustain a diminution of value upon his entire possessions, through failing to possess other classes of investment whose coincident rise or stability would help to neutralise or modify the general decline in price. Hence the valid importance of the judicious allotment of risks, particularly in the case of comparatively small investors.

In the contingency just cited in respect of railways, a concurrent investment in Electric Companies' Debentures would provide compensation; and, as counteracting the fall of Government Stocks, an investment in sound Industrial Securities, which would benefit by the needful supply of transport and materials, would have proved a protective measure in consequence of their simultaneous advance in value. I mention these instances simply for the purpose of illustrating the principle of the advice.

Investments, accordingly, should be apportioned, and the amount of each, over different kinds of security, and in proportion, as to each amount, to the entire extent of the investor's resources. This does not mean that taking Railways as an example, the holding should be distributed over the ordinary stock, preference stock, and debenture stock, of a single railway, but that part should be placed in a Railway or Railways, part in Colonial Government Bonds, part in British Municipal Stocks and so on. This rule, as has been announced, involves the corollary that the several sums thus invested in diverse forms of security should bear in each case a suitable and safe proportion to the aggregate of the investor's total means. Thus, if he possessed in all £2,000, let him invest, for example, £300 or £400 in Railway debenture or preference or guaranteed stock; the same amount in Corporation Loans of the United Kingdom; a similar sum in Colonial Government Stocks or well-selected Colonial Municipal Bonds; and the same in some other approved security.

If the entire fund of savings be £500, divide it into different investments, of say £200, £200, and £100, and generally,

looking to the customary range of accumulated capital, let it be spread, as suggested, into parts of one-fourth, one-fifth, one-sixth and so on. I should, as a specimen, allot £250 to each class of security where the aggregate savings amounted to £1,000. Corresponding rules apply to all investments, whatever be the total funds of the investor, although the amount apportioned to each class of security will be increased beyond the sums I have specified as the aggregate fund enlarges, and the range of selected securities expands. The trouble is undoubtedly multiplied, but the ultimate protection from loss is worth it all.

Securities should be so chosen that none is intimately and mainly dependent upon another. I remember a person who advanced money upon mortgage of an Iron-works and also upon an adjoining Coal-mine: the works, it appeared, were the principal customers of the mine, and a serious reduction of the trade of the former, produced by foreign competition, naturally and gravely affected the fortunes of the latter, so that both mortgages became practically worthless.

I now enumerate certain classes of investments with some accompanying notes of advice. It is obvious that an exhaustive list is impracticable, but the hints suggested in connection with those which are specified will sufficiently indicate the manner in which others which are omitted should be regarded.

1. British Government Securities: Consols. The return generally is too small, but the chief objection is that the principal is so constantly subject to fluctuation that it is hardly advisable to invest. The stock is naturally a most sensitive barometer of all national relations with foreign countries, the course of which it is impossible to predict. Apart from foreign countries, any troubles with our dependencies (to employ a general term) frequently entail an additional creation of funds for the purpose of military action, and the enormous "watering" of Government Securities occasioned by the recent South African War will be remembered. At any stated time there exists a practical though fluctuating equilibrium between the amount of National stock and the public demand for it as an investment, and these fresh

additions, by disturbing that equilibrium, obviously depress the price. Its price within a few years has shown a diminution of £31, in respect of each £100 of stock. One of our principal assurance companies made a fortune over a hundred years ago by purchasing Consols when the value had receded to about £48 per £100. (On the 1st of June, 1797, Consols, which then paid 3 per cent interest, stood at 47½, and on the 23rd of August, 1798, at 47¼.)

Independent of purchases in the market by the operation of the Sinking-fund, these stocks may be regarded as practically irredeemable—a perpetual annuity of the interest attached, but liable to diminution under circumstances favourable to the National credit, for although they may be redeemed at par (£100) after a specified date at the option of the Government, the process would in all probability be adopted of substituting stock at a reduced rate of interest.

2. Local Loans Stock and Guaranteed Irish Land Bonds are well deserving of attention. A remark is suggested with respect to redemption. In the lists issued by stockbrokers, which I have seen, the year of redemption of Local Loans Stock, for example, is (from exigency of space) stated to be 1912; in the official list the statement is "not redeemable before 1912." The investor would naturally, I think, understand these references to mean that the stock would be paid off in the year mentioned, and he would thus probably base his calculation of its total yield on that apparently clear assumption; if, for example, he purchased at 96 he would naturally suppose that in four years' time (from 1908) he would receive, besides the intermediate payment of the interest, the additional bonus of £4 (the excess, namely, of the redemption amount of £100 over the price at which he had bought). His calculation would then stand as follows: £3 on each £96 signifies a return of £3 2*s.* 6*d.* per cent per annum: the £4 on redemption is equivalent (at 3 per cent) to an annuity of 19*s.* 1*d.* for the period of four years, so that his total annual receipt for that time would be £3 19*s.* 1*d.*, or about £4 2*s.* 4*d.* per cent. A reference, however, to any book of authority (containing fuller details) would disclose the fact that the stock was issued on the condition that redemption

would not occur prior to April, 1912, and that, on and after that date, repayment might be effected at not less than one month's notice, in certain amounts at any one time. Hence, if the investor's portion of stock were not redeemed until, say, 1920, his return (including the annual equivalent of the excess of £4) would prove to be about £3 8*s*. 4*d*. per cent, instead of £4 2*s*. 4*d*. Inquiry, accordingly, should always be made in connection with every redeemable security, whether it is absolutely repayable on a specified date, or whether that date is simply the point of origin of the subsequent notice of redemption.

This remark suggests another rule. Do not invest in securities which possess a currency prior to redemption of, say, less than five or ten years, according to your preference. An early repayment means the trouble, time and expense of securing a substituted investment. It is most desirable also to make a practice, as far as possible, of purchasing when a security is at a discount; this happens when the price is *less* than the sum at which the bond will be redeemed, or *less* (in the case of shares) than the amount paid up per share. The trouble of a sinking-fund is thus avoided, and a greater chance afforded of a resulting profit. As I am merely furnishing specimens of the *kind* of suitable securities I now proceed to other forms.

3. The Corporation Stocks of all established towns and districts in this kingdom deserve favourable notice. No doubt in some instances the existing loans of particular municipalities are somewhat excessive, and too heavily proportioned to the local resources which constitute their support, while, in other instances, injudicious expenditure and defective administration have not secured the complete beneficial results which the advances were granted and expected to ensure. While our municipal elections to the important position of administrators for the benefit of local districts result, as they so frequently and unfortunately do now, in the appointment of inferior men who, competent to engage in retail transactions involving shillings, are utterly incapable of dealing wisely and knowingly with complicated and extensive financial expenditure which comprises thousands of pounds; and while the spirit of political party so disastrously intrudes, so long will our municipal

government prove an ineffective instrument for genuine popular service.[1] But if carefully chosen this difficulty need excite no apprehension, as it is not probable that any established town (especially with important local manufactures and staple trades) will ever be so diminished in resources, within the compass of the loans' currency, by a fall in the rateable values of the properties which secure the advances (from loss of vigorous trade or migration elsewhere) as to engender doubt. And even were this a practical possibility in any case, the trade and population must settle elsewhere, and by a judicious distribution of these investments the augmented prosperity of the one will help to repair any reduction in the stability of the other. I have already submitted a comment upon the advisability of excluding short-dated bonds; and particularly in bonds of comparatively brief currency, do not purchase, as I have advised, above par (that is, where the price exceeds £100, the capital value), since the premium will be lost on redemption.

A Corporation Stock has occasionally declined to a very low price on account of disclosed financial irregularities and corruptions in the methods and conduct of administration. An investor is tempted to purchase on the ground of this diminution of value, and the presumption that the publicity given to the acts of bad faith or incompetency will prevent a recurrence of any similar mischief hereafter. And in support of this view he generally, I find, adduces the supposed analogy (which in some way has become current) that if in a fight at sea a hole is made in the side of a vessel by the enemy's shot, that hole is the safest place in which to insert one's head for immunity, as it is improbable, to the extent of virtual impossibility, that another shot will enter by the same avenue. Here is another of the assumed parallel instances whose adoption in another sphere of action is usually attended by disaster. Assuming, as apparently is the case, that the shots with whatever intention will be fairly evenly directed to the injured vessel's side generally, the probability seems to be that the hole would count like any other equal circular uninjured part and be as subject to repetition of a blow. And in making his assumption

[1] For the strain is not felt in the fervid period of borrowing: the test of productive expenditure is to come.

the analogist fails to notice that a second or third shot might well have entered the circular opening made by its predecessor without leaving a visible trace of its passage. Hence the complete number of instances, for and against, could not be collected from which the fraction measuring the probability could be deduced. It is the unseen, unmarked events which constantly render our standards of probability invalid.

A corporation exposed as guilty of improper practices should be treated like an individual whose career has been marked by a discreditable stain. The rules of prudence which we apply to persons should punctually be adopted in respect of collections of persons. We should cease to trust that offending person until he had, by his subsequent conduct, afforded sufficient evidence of definite reformation, and, similarly, an investor should refrain from placing his confidence (in the form of savings) in a corporation, government, or any body of persons controlling an enterprise of any description, until they also had shown in an adequate and undoubted manner that their career had been redeemed, and that they had, moreover, conscientiously endeavoured to repair and indemnify the broken contracts of which they had been guilty in the past. Financial transactions constitute a form of social engagements, and the two bases of such engagements are character and solvency.

It is a sound rule to notice those securities of all descriptions which in all brokers' lists are distinguished by a mark of indication that they are suitable for trustees, though some are better adapted than others to the ordinary investor, which knowledge, circumstances and judgment decide. And upon this point I call the reader's careful attention to a note on a prior page (*see* p. 9).

4. Colonial Government Bonds (including India Stock) and Colonial Municipal Bonds. Allusion need only be made to a few circumstances which affect them.

The Bonds may be to Bearer with a series of coupons[1]

[1] In old French *colpon*, *copon*, or a piece cut off; whence the earlier English *culpon*, *colpon*, *coulpoun*—a slice, a cut, a piece. The latter term had come down to *coupoun*, *cowpon*, but had become obsolete in English, when *coupon* was reintroduced from modern French. The meaning is a separable certificate or ticket of which a series is attached to and forms

attached; or they may be registered or inscribed in the holders' names, in the books of the bank or agent in England who acts for the particular colony in the issue of the loan. In the former case the Bonds can, on sale, pass from hand to hand in exchange for money in the same manner as bank-notes; in the latter case, a sale can only be effected by the execution of a short Deed of Transfer by the vendor.

The comparative safety of the two modes of security will be discussed. In respect of Bonds to Bearer the possibility exists of the loss or robbery of the documents, and the uncertainty of position thus entailed, besides the trouble, while they are in possession, of cutting off the coupons for presentation for payment.

I can discover no helpful information in respect of the holders' status under loss or robbery, and I now offer the results of my direct inquiries. It is difficult to define the lawful owner's position in relation to the receipt of interest and repayment of principal (when the term of the loan has expired) under the contingencies I have mentioned. So far as I can ascertain, the condition would be the following: (it is here, parenthetically, to be borne in mind that, if such Bonds were stolen, they might be sold to an innocent purchaser for full value, who could not be privy to the theft, since securities of this nature, as I have stated, may pass from person to person without a memorandum of transfer, no owner's name appearing upon them in any form.)

Immediately, then, on the loss or theft the owner should write to the bank or agent giving the number and amount of the Bond, and request its stoppage, assigning the reason; if he does not possess the number (and he should accordingly keep a full Register of the details of his investments) he will be able to obtain it from the stockbroker through whom the Bond was bought; if the coupon should be presented for payment, or the Bond for redemption (since the stolen or lost security might, as I have said, be sold to an innocent buyer), the bank or agent,

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part of certain original or principal certificates (of indebtedness), in order that they may be severally detached and given up as required. They are really certificates of indebtedness for the interest.

having received the genuine owner's notice, would refuse to pay, and, so far as I can ascertain, would use the occasion to secure such information as would assist the lawful holder to trace the document; if all efforts in this direction proved abortive the bank or agent would apparently pay the real owner the interest on adequate evidence of the facts (after he had instituted exhaustive inquiries and efforts), and on a satisfactory independent indemnity to which they would naturally be entitled; while, should the Bond fail to be recovered at the time of redemption, it is probable that with British banks or agents, the capital might be paid upon similar evidence (with testimony to character, also, in the two cases) and a correspondingly substantial indemnity by responsible persons.

But the decision would obviously rest exclusively with the bank or agent; no legal right on the side of the owner would appear to exist, since one of the necessary conditions of payment is the production of the Bond for cancelment, and it is solely the owner's fault that this cannot be fulfilled. No bank or agent—and properly so—will express a judgment upon a hypothetical case, and the inference would seem to be that, facile as these losses and robberies are, very few of them have actually occurred.

My own preference leans towards inscribed or registered Bonds; but I would in no way dissuade an investor from accepting Bearer Bonds, provided he can adopt the necessary adequate precautions indicated: he should accordingly keep them, if possible, at a bank. I also advise him to attend personally at the bank on each occasion when the interest becomes due, and cut off the requisite coupon himself. But, with the object of avoiding this frequent trouble to himself and the bank, and for the additional purpose of protection, I have found it a salutary practice to cut off at the beginning of each year the whole of the coupons for that and the succeeding year: this course somewhat neutralises the difficulty I have pointed out, since, if the Bonds were stolen or lost, an attempt at sale would excite suspicion of ownership, and the caution of inquiry, looking to their mutilated state.

Where a purchased security belongs to the class of

inscribed[1] stocks—in other words, where the perfecting of the title resides in the inscription of the buyer's name in the books of the bank or agent by whom the loan is managed,—an interesting question arises. Should the purchaser "accept" (as it is called) the transfer to him by actually writing his name in the Register? The object of this course is his protection against fraud by thus furnishing the bank or agent with an authentic specimen of his signature, which they will compare with the signature on future dividend warrants, and with that on any transfer subsequently submitted for registration. For the stock receipt which the buyer obtains possesses no negotiable value, and need not, necessarily, therefore, accompany a transfer as part of the evidence of title: hence it is evidently practicable for a forger who can ascertain the particulars of any person's holding to attempt a fraudulent transfer to himself. The course formerly pursued, to avoid this contingency, consisted in the attendance of the buyer at the bank where the stock was inscribed with the broker (through whom the purchase was effected) for his identification, and the buyer then signing his name in the register as accepting the transfer, and thus providing the bank with an example of his signature for its use. This plan proved very inconvenient, and comparatively few people adopted it; a more reasonable practice has recently been introduced with the same end of protection in view. Taking a stock inscribed at the Bank of England; the buyer may attend alone, without a broker, in the chief accountant's department; sign a simple form requesting a confirmation of his name being upon the books as the owner of the stock in

[1] Inscribed stocks: Latin *in*, upon, and *scribere*, to write. The owner's name is entered as the legal holder in the Books of the Institution managing the issue. Such stocks cannot be transferred from seller to buyer by simple delivery of documents, since there are no documents to deliver. A change of ownership must be effected by a fresh inscription in the Books, and hence inscription constitutes the title.

Registered stocks: Low Latin *registrum*, a book in which events are recorded: from *re*, back, and *gerere*, to bring. A registered security is only transferable by a separate deed, and no holder possesses a legal title until his name as transferee has been recorded in the company's books. The distinction between the two terms is artificial in respect of reality of ownership.

question; pay a fee of one shilling; and leave the stock receipt. In a day or two the bank will return it, with a printed memorandum recorded upon its face, signed by the chief accountant, to the effect that the amount of stock to which the receipt refers was inscribed in the books of the bank in the name of the buyer on such and such a date. Or, if attendance should be inconvenient, the buyer need simply write to the chief accountant, desiring a letter of confirmation; sending the stock receipt, with a Postal Order for one shilling; and the preceding result will take place. The present practice of the other banks (acting as agents for loans) is similar.

Moreover, if a person has not accepted transfers of former purchases of inscribed stocks, he can, by applying for a form to the chief accountant, completing it (and returning it) with particulars of his different securities, obtain a verification of the fact that the several stocks stand inscribed in his name. The fee (if more than one stock is comprised) is sixpence per account, with a minimum amount of one shilling. It is quite worth while adopting, for safety, this ready and economic course.

5. The Bonds of many Foreign Governments may be accepted with confidence. But it is important first of all to ascertain the laws of the particular country upon the subject of internal taxation, or the investor may find his return from the investment seriously reduced by double contribution to local fiscal charges and his home income tax.

It is hardly desirable for the ordinary investor to purchase Bonds which are redeemable by annual or periodical drawings. Certain Bonds under such an arrangement are drawn by lot every year during the currency of the issue, and redeemed: intimation of the drawings which have thus been effected is furnished in the leading newspapers, or can be ascertained by application at the office of the English agent; and if a particular Bond be drawn shortly subsequent to purchase (which it possibly may be, and the chance obviously increases with each year), the renewed trouble and expense of re-investment elsewhere are incurred. Moreover, the recurrent search and inquiry to discover whether a Bond has been drawn or not are so burdensome that I personally, after experience of the

kind, invariably avoid this class of investment. It should also be seen that both principal and interest are payable in gold or sterling at a fixed rate of exchange, and both payable in London. In the Bonds to Bearer we have to bear in mind the possibility of loss and robbery, and the owner's position in either of these events I fail to ascertain. My advice accordingly would be to avoid, as far as possible, investments in this latter form.

In regard to foreign government securities as channels of investment—and the principle applies indeed to every borrower, individual or corporate or national—the element of Character is essentially involved, and the practice adopted with respect to private persons should be applied. If, on any occasion, delay in payment, above all, default, is recorded in the history of the borrower, let the investor close his eyes to the most tempting offers. Or if, like a thriftless individual, the country's expenditure tends to exceed its income, or the borrower's career has not proved a consistent record of probity and punctuality in the fulfilment of obligations, or if former borrowed funds have been largely wasted in profitless schemes, or in the discharge of debts incurred without any provision being set aside for their honourable satisfaction; in any of these contingencies the refusal of confidence which we display towards a person in similar circumstances should be extended here. On the whole—although there are many foreign governments of the highest honour and reputation whose obligations are deserving of fullest trust—the ordinary investor, perhaps, unless he can command skilful guidance, would better exclude this description of investment from his list. With the possession, however, of a competent adviser, for he himself will probably only have a vague and general knowledge upon the subject, indefinite for purposes of discrimination, he may safely entertain some investments of this selected nature.

6. If American Railway Bonds are purchased they should be restricted to the leading lines, and be limited to First Mortgage Bonds expressed (with the interest) in gold or sterling. We have here to regard—in the exercise of careful discrimination—the methods of finance too frequently adopted: the control of many commercial and industrial undertakings by

a few individuals who—stimulated by egregious eagerness for private gain, the love of power, and the attraction of unlimited wealth—have sometimes, in the past, attended mainly to their personal interests irrespective of the general good; the monopolies and trusts which exist, with their baneful influence and their sordid exclusive aims; the consequent aggregation of power and the command of general commodities in selfish hands, which grasp and never open except to grasp; the consequent merging of the community in the individual; and the deficient force of public opinion upon opprobrious and oppressive administration and action; the practical vanishing, which often ensues, of moral responsibility before the unintelligent energy for the quest of riches. Surveying this tortuous and bewildering condition a grave care is laid upon the ordinary man, in the form of inquiry, caution and discrimination. As these modes of investigation—in order to disentangle the genuine from the mass—are exceedingly difficult of accomplishment to the investor of small means, of smaller opportunities of direct information, and of still slighter knowledge, his decision should be, until he knows better than he does at present, to abstain, unless he can count among his friends a mentor who is practically competent to counsel, for undoubtedly many American securities are of high and commanding character.

7. Home Railways. The appended figures (employing round numbers) are those of a typical English railway—the London and North Western—

1. Upon the Consolidated Ordinary Stock of £43,000.000	a dividend of $6\frac{3}{8}$ per cent was paid in the year under survey	or	£2,740,000
2. Upon the Preference Stock of £3,000,000	interest of 4 per cent was paid in that year	or	£120,000
3. Upon another Preference Stock of £23,000,000	the preceding interest was paid	or	£920,000
4. Upon the Guaranteed Stock of £15,000,000	the preceding interest was paid	or	£600,000
	Annual payment	...	£,4,380,000
5. Upon the Debenture Stock of £39,000,000	interest of 3 per cent was paid in that year	or	£1,170,000
	Aggregate annual payment	...	£5,550,000

Thus the Debenture Capital (which stands first in priority of security upon the resources of the Line) possesses, as security for the payment of its interest, an annual net income (earned for the year observed) of £5,550,000; or, regarded from another point of view, there exists, *after* the discharge of such interest, a margin of £4,380,000, which is equivalent to an additional sum of £11¼ per cent. Nothing could be safer, and the Preference and Guaranteed Stocks, according to the rank of their security upon the undertaking, have behind their individual interest the annual security of the interest paid upon the succeeding stocks and of the dividend distributed upon the Ordinary Stock—the latter showing an annual security for provision of the antecedent obligations of nearly 2¾ millions of net revenue, or to consider the Debenture Stock (and correspondingly for the remaining subsequent stocks, which stand, in order of security, before the ordinary capital), the railway might lose a net income of £4,380,000 a year, without trenching upon the full payment to the extent of one penny of the Debenture interest.

It is obvious that Debenture Stocks, by reason of the superior security which they possess, yield a lower rate of interest than stocks stationed beneath them in order of rank of priority.

This analysis has been adopted for the purpose of showing the mode of estimating the security of the several classes of stocks, and the illustration applies generally to the principal Lines. At the end of the section I shall specify the order in which the stocks of certain railways stand in respect of mortgage upon the line.

Some Preference Stocks depend for their interest upon the profits of each separate year, so that if, after providing for the interest on the Debenture Stocks, and upon any other obligations in prior order to the Preference Stocks in question, the remaining balance should prove insufficient to discharge in full the interest for such Preference Stocks, the deficiency could not be accumulated or held over for satisfaction out of the profits of a subsequent year.

Some Preference Stocks are termed "Cumulative," and entitle the holder, when the profits of any year are insufficient

to provide the entire interest then due, to claim the balance of arrears from the net surplus of a succeeding year before any payment of dividend can be allotted to the ordinary shares. The term "Preference" indicates that the claim of such stocks upon the profits of the line is prior to that of the owners of ordinary stocks.

Railways also issue (besides ordinary stock in the usual form) a part of the ordinary stock in the divided form of Preferred and Deferred, the former receiving a fixed rate of interest, the latter a variable rate of dividend in accordance with the net revenue realised during each year. It is obvious that the Preferred Stock is likely to be the more stable in value, since whatever be the net earnings, it receives (after payment of the interest on the different classes of prior issues) a stated return, while the Deferred (and the Unconverted Ordinary) are the subjects of continual speculative transactions, determined in value by the dividend prospects and anticipated results of the working of the line, as dependent upon the absence or imminence of strikes, the activity or depression of trade (and, consequently, of the amount of goods and materials to be carried), the state of the weather for light or heavy traffic (that is, for the carriage of passengers or goods), the cost of coal, the condition of wages, the need of repairs and renewals, the damages for casualties by collision, the wisdom or recklessness of capital extensions, the possibilities (which will operate upon all the obligations of a railway, but with special force upon the ordinary capital) of effective electric traction, and many other elements.

The investor thus perceives the various orders of security from which he may select; practically speaking—that is to say, regarding the risks which are incident to all enterprises and ventures,—the higher-ranking Preference Stocks are equivalent in security to the Debenture Capital, which yields a lower rate of return: if he require the soundest security he will choose Debenture obligations, but he cannot wander astray if he select with their more remunerative income the kind of Preference Stocks to which I have referred in the principal Lines; while he is advised, for the reasons I have assigned, to abstain from ordinary stocks, and abandon them to the

investor with a speculative tendency, or to prudent capitalists who, possessing such ample means that any investment in these fluctuating securities bears but a moderate proportion to their entire resources, can afford to sustain the recurrent changes to which such securities are continually liable.

The present place appears to be as fitting an opportunity as any to mention an error common among investors, and the remarks submitted apply generally. The source of numberless mistakes in judgment and action (founded as they should be on exactness of knowledge) consists of terms improperly employed. Precision of language is correlative with accuracy of thought, and accuracy of thought finds its expression in correctness of judgment. Thus, the term "interest"[1] should be restricted to any return on capital which is of a fixed quantity, as, for example, the interest upon Debenture Stock, and upon an advance on mortgage; while the term "dividend"[2] should apply to any return which is of a variable amount (or ratio); thus the ordinary stock of a railway participates in the surplus revenue which remains after the interest on the prior obligations (possessing a superiority of secured position) has been satisfied; and hence, as this surplus varies from half-year to half-year (with the financial working of the line), the amount (per share) distributed to the ordinary capital is not uniform; it is accordingly rightly named "dividend," or that which remains to be divided. In the same manner the word "dividend" should be used for the return received upon the ordinary capital of a commercial company. I remember that a corporation once held some of the obligations of a foreign railway (corresponding to our Debenture Stock) with a fixed rate of *interest*. A friend of the corporation obtained authentic information that, at its ensuing account, the railway would be

[1] **Interest:** profit, advantage; apparently a substantive use of the Latin *interest*, it matters, it concerns, it is profitable. The word embodies the relation of being objectively concerned in something, by having a right or title to, a claim upon, or a share in, money paid for the use of money lent. The remuneration given for the use of capital.

[2] **Dividend:** Latin *dividendum*, that which is to be divided, from *dividere*, to cut into two or more parts. Consequently each share depends upon the total to be distributed, and the number of shares into which it has to be parted.

unable to pay any *dividend*. But the friend in question entertained the customary confused notion that the terms "interest" and "dividend" were synonymous, and he consequently advised the corporation that the interest would fail to be paid. The corporation accordingly sold at once and suffered a loss, as the time was not opportune for sales; and the "interest" was subsequently paid with punctuality by the company. Had the friend been careful in his employment of words the loss would have been converted into a profit.

As an inquiry of interest, I have been at some trouble to ascertain the order of priority of security upon the net revenue of some of our leading Railways, and the information is appended:—

(1) London and North Western:—

1st position, Debenture Stock.
2nd ,, Consolidated Guaranteed Stock.
3rd ,, Preference Stock.
4th ,, Preference Stock of 1902.
5th ,, Consolidated Ordinary Stock.

Where the company works other lines on lease, the rent for the lease ranks next after the lessees' Debenture Stock.

(2) Great Western:—

1st position, Debenture Stocks—all ranking *pari passu* without distinction of denomination.
2nd ,, Rent Charge Stock.
3rd ,, Consolidated Guaranteed Stock.
4th ,, Consolidated Preference Stock.
5th ,, Consolidated Ordinary Stock.

The rank of the rent of the leased lines depends upon the terms of the leases.

(3) Midland:—

1st position, Debenture Stock.
2nd ,, Consolidated Perpetual Guaranteed Preference Stock.
3rd ,, Perpetual Preference Stock.
4th ,, Preferred Converted Ordinary Stock.
5th ,, Deferred Converted Ordinary Stock.

The rent for leased lines ranks, as a rule, after the company's Debenture Stock.

(4) London and South Western:—

1st	position,	Debenture Stock A.
2nd	,,	Consolidated Debenture Stock.
3rd	,,	Consolidated Guaranteed Stock.
4th	,,	Consolidated Preference Stock of 1881.
5th	,,	Perpetual Preference Stock of 1884.
6th	,,	Preference Stock.
7th	,,	Consolidated Ordinary Stock.
8th	,,	Preferred Converted Ordinary Stock.
9th	,,	Deferred Converted Ordinary Stock.

The rent of leased lines ranks *before* the Debenture Stock interest.

(5) Great Eastern:—

1st	position,	Rent of Leased Lines.
2nd	,,	Rent Charge Stock.
3rd	,,	Metropolitan Stock.
4th	,,	Debenture Stocks.
5th	,,	Consolidated Irredeemable Guaranteed Stock.
6th	,,	Consolidated Preference Stock.
7th	,,	Preference Stock of 1890.
8th	,,	Preference Stock of 1893.
9th	,,	Ordinary Stock.

I repeat a remark—of general application—which I have already submitted. A security, though ranking in order of charge upon an undertaking subsequently to another security in that undertaking may be as acceptable as the latter for all practical purposes; and by "practical purposes" I mean as to the safety of the principal, and the certainty of the punctual payment of the interest. In some securities[1]—though not frequently—it is possible to possess a surplusage of margin—a range of security which is needless for the reasonable requirements of practice, and for which accordingly it is not worth while paying in the form of the higher price.

8. Railways other than those in the United Kingdom. This section includes the undertakings in foreign countries, in America, in the Colonies, and in India.

(*a*) *Foreign Railways.* If these be purchased, and a reason-

[1] As, for example, a Government Security in comparison with a Municipal Security or a Railway Debenture Stock.

able choice can be made among them, the investment should be restricted to First Mortgage Bonds in gold or sterling at fixed rates of exchange; the question of local taxation should be inquired into: the powers (if any) of the Government to assume the lines at a subsequent date, and the terms of purchase; and generally, although many railways are of excellent standing aud character, the subject is too extensive and complicated for minute advice in this book. The intending investor, if disposed to accept such securities, should either possess adequate personal knowledge of the financial history of the companies, or be guided by one who has devoted special attention to the class.

(*b*) *American Railways.* I have already dealt with this section. I cannot too emphatically insist upon the essential element here, and in all transactions, of honourableness of character exhibited by the controllers and administrators of the undertakings considered. We want intellect in the form of specialised knowledge and practical judgment, if success is to be achieved, but equally it is imperative to find moral character embodied in every arrangement and obligation, and in the direction of the enterprise for the benefit of the whole constituency concerned, untainted by preferential treatment of the few. The remark is a general one, and applies to all commercial and industrial undertakings—that an adequate estimate of a company's operations, and the consequent advisability of investment, can only be formed by an examination of a series of accounts and balance sheets; the stability, as a reflex of sound management, exhibited in the record of the prices of its shares in the market, and general repute. This inquiry demands special aptitude which the customary investor cannot usually possess, or devote the time and training to acquire, and hence, here and elsewhere, he must be guided by external advice if he invest.

(*c*) Similar remarks appertain to *Railways* in the *British Possessions.*

(*d*) It may generally be advised that, as a rule, Bonds, not registered but with coupons attached, should, on account of the difficulty of defining the owner's position in the contingency of loss or theft, be avoided.

(*e*) As regards *Indian Railways*, the process of purchase by the Indian Government proceeds as the dates of the original leases of the lands on which they are constructed expire. The Government, in purchase, chiefly allots in exchange two classes of annuities continuing for a specified period. The capital sum paid by the Government in exchange for the transfer constitutes the present value of these annuities, on the basis of the rate of compound interest for their calculation which has been settled. In the one class of annuity the full annuity is received by the owner and, unless he himself provide from each payment of the annuity an amount (termed a Sinking-fund), which he can continuously invest at compound interest during the currency of the specified term, his capital becomes totally extinct and lost when that period has terminated. In the other class of annuity, the same annual sum is granted, but before its payment a small stated proportion is deducted as a sinking-fund, and placed in the hands of responsible trustees, so that, by its investment and reinvestment while the annuity endures, the full original capital of the holder may be restored to him at the close of the assigned time.

It is obvious that trustees skilled in finance, with funds to deal with of the magnitude represented by the aggregate of these "sinking-fund" deductions, are in a position to realise, for the benefit of the holders, a continual and adequate rate of compound interest which is utterly impracticable to a single investor who attempts—and will fail—to create and manage a sinking-fund for himself. Hence, for example, he should select the B annuities of the Great Indian Peninsula Railway and the C annuities of the East Indian Railway. The B annuities of the latter railway do not provide a sufficiently large sinking-fund. These annuities are charged exclusively upon the revenue of India, without recourse to any claim upon the resources of the United Kingdom, but the security is complete since the British nation would never permit the Indian Empire to pass from its control. Where a trust fund comprises Indian Railway stock the trustees should obviously —for the protection of the reversionary beneficiaries—select the form of annuity which provides for redemption of the capital. A remark also may be added with respect to the

administration of the sinking-funds of these different railways. If the several administrators confine themselves to what are usually regarded as strictly trustee securities, they will simply, as the various sinking-funds increase in amount, be bidding against each other in the purchase of such securities; the prices of those securities will be thus enhanced by the competition, and the rate of accumulation for the sinking-funds become reduced. Hence, the administrators should wisely and soundly enlarge their range of investment.

9. Commercial and industrial undertakings. In this section I include banks and insurance companies, mining, shipping and manufacturing companies, trusts of various kinds, and, indeed, companies of every description. There are many others whose securities claim attention, but it would be impossible to render a schedule complete. I shall make a few general comments as hints for the investor's mode of consideration generally, and, in a few specific cases, furnish advice.

The tests of a company's solid attractiveness for the investor consist of—

(1) The examination of its published accounts and balance sheets for an adequate number of years, as exhibiting its successful and sagacious working.

(2) The general reputation which it enjoys among persons competent to appraise its management and progress.

(3) The absence of any irregularity in the precise fulfilment of its obligations, and a continuous record of honourable action.

(4) A full and frank statement of its affairs, so far as this condition can be judged.

(5) The stable value which its shares maintain in the market.

(6) The rates of dividend which it has successively paid.

(7) The character and position of its controlling board, whether merely or largely men of social standing without special qualifications adapted to the nature of the business, or whether rather they be men of acknowledged business capacity, reputed in the commercial and financial world, possessed of general or special business training, which the successful prosecution of the particular undertaking demands, and competent accordingly to exercise a genuine and efficient control.

(8) Has the company shown a capacity of foresight for the chances and changes incidental to all financial enterprises—and particularly imperative where the nature of the business may be subject to special fluctuations from foreign or internal competition, modifications and diversion of popular fashion and demands, and other possibilities too numerous to enumerate—by creating, maintaining and augmenting a reserve fund in protection of the capital, and in adequate proportion to possible (and it may be exceptional) changes and contingencies which particularly appertain to a specific business or class of commerce, finance or trade?

(9) Has it been established for an adequate time to enable a valid judgment to be formed of its prospects of continued success?

(10) Has it passed successfully through the crises common to its scope and area of operations?

Before proceeding, it is desirable to add a few words upon certain expressions which are necessarily employed throughout this book, throughout all treatises upon finance and business generally, and in all the concerns and arrangements of life. The meaning of many words is simple and limited, and easily competent of grasp, with full apprehension and ready application. With the extension and growing complexity of social and business relations other words require to be introduced to describe them; these words accordingly possess wider meanings, and frequently a set of meanings, bound together by a general sense, though showing slight shades of difference. And, as the affairs of life which need description amplify, the terms expressive of them tend to become more or less indefinite, so that, although a general sense can always be attached to them in their current use, the exact extent and definition of that sense cannot be obtained by reference to a dictionary, but must be interpreted on each occasion by the general knowledge and experience of persons in the class of cases to which they apply. Hence we had to employ such wide terms as "reasonable," "sufficient," "adequate," "success," and others. It is the same in the commonest affairs. What is "reasonable wear and tear" of a house or furniture which is let? No one can define it with precision; and in any dispute which arises

it has to be determined by the rough approximate notions—called comprehensively "common sense"—which persons have gained by practical observation of what constitutes fair, and ordinarily careful, usage (here, again, we must introduce vague words like "fair"), and usage which is violent and unusual. The interpretation of these terms in business, or operations of a special nature demands, of course, this native common sense, conjoined with skill and knowledge appropriate to the business or operations concerned.

The several criteria to be applied to a company prior to selection, which we have specified, appear to express an ideal condition.

This is true; but it is the well-founded boast of British trade, commerce and finance, that so preponderant a proportion of our undertakings virtually satisfy them all. So that gradually the history of a particular company grows and becomes consolidated in the business mind into what may be termed "general reputation," by which we are ordinarily guided in our judgments, without the necessity of minute investigation.

Breweries, mines, shipping, telegraphs, iron, coal and steel. Many sound investments may be discovered here; prosperity, of course, depends largely upon the vicissitudes of home and foreign trade; and in the case of breweries, upon disastrous competition between themselves; the consequent unproductive creation of capital; the possibilities of restrictive legislation and the changes in popular habits of life and social views. The ordinary investor is advised to omit all these undertakings from his list; they require for a just discrimination too special a knowledge and vigilance of oversight for him to command.

In companies largely or exclusively dependent upon particular social demands, or the requirement of certain articles or manufactures, a difficulty in judgment arises which claims examination in respect of (1) the public fashion or need changing or becoming modified whereby the demand for such commodities is affected; and (2) the possibility, if such an event occur, of additional capital requirements (which will tend to reduce the value of the existing capital invested) for adapting the machinery and processes (or completely changing them) in adjustment to the altered character of the demand.

Here, again, it is to be observed that when a flourishing private business is converted (as the definite tendency appears to be) into a joint stock undertaking, and the investor, on the knowledge of the past successful working, is tempted to invest in the new company, the chance is to be weighed whether the prosperity is likely to continue when the personal energy, cautious enterprise and tested ability of a small body of persons whose private position, personal honour and individual capital were at stake in the management, are supplanted by the (frequently) inferior sagacity and less stimulated power of supervision and administration of a different board and officials. If an investor is competent, on the change of constitution, to examine and assess the prospects, he will preferably select the debenture or higher preference stock, provided he find that a substantial annual margin of surplus revenue exists as a protection after payment of the interest upon the stated stocks, But at this initial stage of transformation exceptional care and caution are requisite.

The positions of a speculator and a general investor are here particularly distinguished; a speculator may possess special knowledge, or he may naturally assume that, for a time at least, the venture in its altered form will probably succeed; there are certain traditions and a solid good-will which, from mere custom, frequently remain attached to a transformed business or trade, especially if the former modes of work which have produced success continue; he will then watch for any signs of diminished public favour occurring from any cause, and then sell before a decline (if this should occur) should definitely set in. But this is not the right procedure for the usual investor; if he think well of the company from special knowledge he should defer his purchase of their debenture issue until, from the accounts and the general reputation which the business may maintain and augment, he feels reasonably assured of its established solidity and prosperity under the altered conditions of management. Delay may in all ventures miss a profit; but the confirmation of the habit of thoughtful delay—delay which means inquiry and scrutiny—wins in the end, and, at all events, helps to avoid precipitate losses.

A word of caution is advisable upon the subject of deben-

tures,[1] for the word is loosely applied with a wide and vague range of meaning, and includes securities which possess a specific mortgage upon the entire undertaking, and securities which merely entitle the holder to rank, in the event of default, as an ordinary creditor on a level with the butcher or baker who daily supplies the concern. (*See Note*, p. 52.)

In all institutions where the capital is not fully paid up—whatever be its solvency and prosperity—the ordinary investor is rightly advised to refrain from the purchase of shares on which this uncalled liability exists. I have already counselled him to accept no ordinary shares whatever, since it is upon them that all the stress of vicissitudes is placed; and even extensions of capital ranking in priority of security to these shares, and legitimately effected to augment the fortunes of the general business (in which, if expectations be fulfilled, the share capital will benefit) necessarily receive their interest in priority, and still further increase the burden of the shares should ill-fortune arrive. If the purchased share be one, for example, of £20 with £10 paid, the holder is liable to be called upon, if difficulties arise, or if the business suggests extension (though usually in the latter contingency Debenture Stock might be created) for the balance of £10 per share, or part of it, and thus, in the former event, he would tend to increase his loss, and, in the latter event, augment his holding in cash, in the single venture, beyond his expectations and arrangements, or at all events, find his security burdened with a larger prior charge. A call of further cash capital, or the issue of stocks with priority of rank, may be fully justified, as I have said, and tend to the investor's enhanced benefit, but, notwithstanding this possible or probable advantage, he does well,

[1] **Debenture:** an acknowledgment of indebtedness; Latin *debentur*, they are due, from *debere*, to be due, to owe. A debenture has been judicially defined as "a document which either creates a debt or acknowledges it." The mere employment of the word does not in itself confer any rights beyond an admission of indebtedness, though popular belief still assumes that such a document must always be secured by a specific charge upon a property, or at all events entitle the holder to a preferential claim over other creditors. The rights of holders of any particular issue of debentures can only be ascertained from the instrument or trust deed, or other document under which the debentures were created, or from the Debenture itself.

especially if he be a man of comparatively small resources, where a judicious distribution of them is the more urgent, to refuse any investment where an uncalled liability is entailed, however prosperous has been the past history of the company, or however propitious be its evident prospects. The prudent investor, of course, with abundant means, where a loss in any direction would not seriously affect his general financial position, may properly adopt a different view.

Companies exist which, in consideration of an annual premium, guarantee the capital and interest of investors in various joint stock commercial and industrial undertakings, so that an investor thus possesses a twofold security—that of the original company and that of the guaranteeing office. The latter, for their own protection, exercise a skilled and constant supervision over the progress and prospects of the undertaking, whose obligations they protect—a course obviously not feasible to the single individual. But without impugning in any degree the value of this extraneous guarantee, the question arises, why, if the original concern be thoroughly solvent and prosperous (which must be the case, or the protection would not be furnished) should the investor be willing to charge his interest (or dividend) with the necessary premium, instead of retaining the entire income to himself? And, on the other hand, if doubts may exist of the permanent solidity of the original company, so that a supplementary security is deemed to be necessary, why invest at all? But the question must be answered by each investor himself should he possess, or acquire, the knowledge necessary for the judicious choice of investments of this character.

The general advice still remains to the man of minor means, that companies, however excellent, which require this protection had better be left to the choice of richer men. An excellent service is rendered in a different form by such a guaranteeing company. An admirable property is purchasable, but some defective link in the chain of legal title—possibly unimportant from lapse of time or duration of holding—prevents completion. The guarantee of such a company finds in this case an obvious and useful function.

10. It is sometimes suggested that a part of the investments

should assume the form of deposits at interest in banks or discount houses of repute. I hold that it is an inaccuracy of language to apply the term "investments" to deposits: deposits should only be utilised in order to prevent the loss of interest until a permanent security has been obtained. In the event of a failure (however utterly improbable) the depositor would simply rank against the assets as an ordinary creditor.

11. I have already implicitly referred to banks and insurance institutions in preceding remarks, assigning as the sole reason against the purchase of shares, the fact that a liability generally remains upon the capital. They are suitable investments for large resources, where a loss (however improbable) would constitute but a small fraction of the investor's aggregate funds; but the existence of an additional liability (intangible though it may be) should not be accepted by the investor of slender or moderate means. I cannot close this section, with satisfaction to my own feelings, without the comment that the banks and insurance companies of the United Kingdom justly furnish a subject for national commercial pride.

12. I need not dilate upon investments of other descriptions: the principles I have expressed can be adapted in application to the assessment of their desirability.

13. In connection with joint-stock undertakings, certain observations suggest thought.

(*a*) *Reserve Funds.*—The object of these funds is the protection of the capital should financial disaster, or grave difficulty, occur in the company's history. It is obvious, accordingly, that if the reserve be employed in the business itself, it will share in any monetary troubles that may arise, and hence its protective character and function will disappear. The reserve should be invested in sound securities outside the company's particular undertaking.

(*b*) *Failures.*—In assessing the significance or indication of some signal disaster by misadministration or fraud, or both united, the thoughtless use of imagination constantly obscures clearness of vision and sobriety of deduction. All perception of proportion vanishes, and we begin to lament the decadence of trade and commercial honour. A true estimate of the position can evidently only be gained by comparing the number

of failures with the aggregate number of similar business concerns (incident to these contingencies), and thus obtaining the ratio, when sanity of reflection will be restored. This consideration of the ratio between the cases which happen and *all* cases (of a similar nature) which happen and have not happened applies to every exercise of judgment and forecast.

(*c*) *Amalgamations.*—A definite tendency exists at the present time towards the union or amalgamation of extensive businesses of the same class. To the principle of amalgamation and the wisdom of its adoption no valid objection can be urged in a considerable number of instances which can be readily conceived. But the possible danger confronting us in the present mania for these arrangements should be seriously pondered.

By the creation of these vast monopolies, public convenience and economy and comfort of living may be gravely jeopardised; for through the absence of healthy competition, arbitrary practices by combination may result, and even the most necessary articles may rise far in excess of their normal value, while a restoration to reasonable prices is frustrated by the suppression of smaller companies under the weight of these dominating opponents. When we now apply to a company and fail to receive what we deem to be equitable terms, we turn to a competitor and secure our desires; but the cancelment of competition tends to render us slaves to whatever requirements the monopolists may demand. Public facilities and legitimate public rights may thus be menaced and defeated. During the period only since 1891 the number of joint-stock banks has been reduced from 106 to 31: the diminution of competition, in the interests of mercantile energy and enterprise, is thus startlingly evident; and this with an augmenting area of business. It has been shown that, by the combinations effected in 1918 alone, the amalgamated banks (about half-a-dozen in number) represent resources of £1,370,000,000 in capital, reserves, and deposits out of the aggregate resources of £2,000,000,000 held by *all* banking institutions, or a proportion of over 68 per cent. The situation should be regarded in relation to the anticipated widening of commercial operations, in the national interests, and the provision of correlated financial aid and helpful conveniences. It has, again, been stated that

more than one mercantile firm which possessed a substantial credit at each of two banks prior to their amalgamation have already found it difficult to secure the continuance of that total credit with the combined bank notwithstanding the fact that the financial stability of the firm endured unimpaired.

Bearing all human limitation in mind, I make no comment upon the possibility of institutions which, separately, are admirably managed by different chiefs, failing to be equally well administered as auxiliaries to commerce when massed together under a single control. The practical abolition, again, of competition may, from the nature of the case, conduce to a diminution of skill and enterprise, alertness and ingenuity, and to the production of less finished adaptations of processes and products to purposes, for competition sharpens wits. And it is evident that any wide expansion of this diminished capacity would leave its permanent mark upon our national vigour, sagacity, and prosperity in the general prosecution of our commercial heritage.

NOTE.

An able correspondent was so impressed with this statement in the first edition that he particularly desired me to expand the explanation. He had been investing, he informed me, all his life, in Debentures, under the mistaken notion that the mere description of a Bond by this term embodied exceptional security and rights. Startled by the preceding paragraph, he began to revise his list of so-called Debentures. It will be useful, accordingly, to accede to his request for the benefit of my readers generally. A debenture may be either (1) a simple promise to pay, or (2) a promise to pay secured by a mortgage or charge upon the whole or part of the property of the Company. Debentures which confer a priority of position and rights are termed Mortgage Debentures, where the property which constitutes the security is vested in Trustees, for the exclusive benefit of the Debenture-holders, by a separate Deed. In this case the Trustees become the owners of the property, and no dealing with it or change can be effected without their assent exercised in the interests of those for whom they act. A second form of Debenture may constitute what is termed a Floating Charge or a General Lien in favour of the Debenture-holders upon the undertaking of a Company. But, in this case, the Company is not precluded from disposing of the property or assets or parts of them by sale or charge if it deem this course to be necessary in the interests of the business generally; and, naturally, under this arrangement, the property, when redemption of the Debentures is due, may be reduced in value below that which it possessed when the Issue was created if the administrative

capacity, prudence or honour of the Company (in disposing of, or alienating, parts, or failing to substitute other property or accessories of equivalent worth and service for that which has been parted with) has not enhanced, or has neglected to maintain, the original value. The most usual course adopted by companies is to give a specific charge over the immovable assets and a floating charge over the movable assets. Sometimes, however, only a floating charge is granted over the whole of the assets. An intending investor should consult the Memorandum of Association of the issuing Company in order to ascertain whether express power to borrow exists, since a power to borrow can only be applied if it be properly incident to the course and conduct of the business. A limit on the borrowing powers of a Company may also be found to be prescribed. It is scarcely needful to add that many Debentures, although unsupported by any specific mortgage of property, are perfectly sound and acceptable according to the history, resources and character of the Company by whom they are issued.

It has already been remarked that the Debenture stock of British railways (issued in substitution for terminable debentures) ranks in priority of security upon the general undertaking.

CHAPTER IV

MISCELLANEOUS REMARKS UPON INVESTMENTS

A FEW miscellaneous observations may be offered, some of which have already been implicitly or explicitly expressed: repetition, though wearisome at times, often adds to force of impression, and thus carries its own excuse.

1. In the purchase or sale of investments, the transactions should be carried out by a respectable stockbroker. The investor should give his instructions clearly and precisely in writing; the broker should be advised of the exact nature of the stock or share selected, and the price at which it is to be bought or sold—allowing, if need be, a small assigned margin of price either way. In lending money on security a preliminary agreement of conditions is required; these obviously should be most precisely expressed, and my own view is, that it is preferable to incur the cost of its preparation by a reputable solicitor, than to sustain the chance of loss or compensation through the employment (to which the ordinary man is astonishingly liable) of language which is not sufficiently guarded or defined.

2. In all business transactions, whatever be the character, honour and position of each contractor, written statements should be adopted in place of verbal agreements. The latter course is a fertile source of ultimate misunderstandings and misinterpretations; even on occasions where each person is simply anxious to deal with rectitude and reasonableness, a mere physical gesture at an interview, which would not be represented in a written document, may naturally and gravely affect the intended meaning of a statement. Or, if a preliminary agreement should be arranged verbally, it should be

subsequently reduced to writing and assented to by the signatures of the persons concerned, prior to its definite execution.

I have known instances of agreements entered into at interviews by men of high character and eminent ability, intimately familiar with important financial affairs, and cognisant of the value of the rigorous employment of terms, where each subsequently repudiated the interpretation of the other on certain questions which were discussed and decisions supposed to be arrived at. Natural ability and conscientiousness form no defence against the ambiguities and misrenderings which colloquial speech, and perhaps defective memory, may involve.

3. There should be no hurry in investing or lending: time should be used to survey and think. By this course the lender or investor may sometimes lose a security which it would have been profitable to possess; but in the long run the cultivation of this practice will save him from regret and possibly from loss. The present era is especially marked by "raw haste," which men frequently mistake for quickness of thought and swiftness of judgment, and by precipitate action, which is often dignified, delusively, by the name of energy.

4. It is important that the investor should not purchase beyond his means by borrowing money for the purpose of obtaining a desired security. It may be expedient to do so on some particularly favourable occasion, but the borrowing should be upon some other investment which is already possessed: better it is, however, to make a practice of refraining, since this transgression of the boundary of prudential and cautious action may tempt the evil spirit of speculation to enter.

5. If the investments be sound and prices fall in consequence of some local or extensive panic, patience and serenity of mind should be preserved. Often, I admit, this is a counsel of perfection, when general credit appears to be crumbling into ruin; but it must be attempted, and one mode lies in the cessation of noticing the agitating records of declining values until their descent be arrested. No man has ever succeeded who has not striven, and at all events reasonably achieved, to gain the mental and moral discipline of retaining his soul in peace: changes of value, violent as well as slight, occurred myriads of

times before we invested, and will occur myriads of times again. The rhythmic order of the world and of human affairs shows that one set of circumstances will invariably be succeeded by a set of a different type in perpetual iteration and recurrence, and yet be consistent with a general equilibrium. We could not speak with any sense or meaning of fortune did not misfortune exist.

6. Let it always be remembered, once more, that the man of moderate means should sedulously keep to the common forms of investment: it is only the man of comparatively large capital—to whom a misadventure would only signify a minute fraction of his total principal—who can safely afford the chance (without degenerating into a speculator) of a larger profit by entering into the domain of a more specialised finance. But even for him, equally with the minor investor, the principle of the proper distribution of risks is imperative.

7. I have frequently warned the investor against speculation, and, as that term is a wide and ambiguous one, an explanation is desirable. I mean a man whose business is the constant venturing upon the chances of loss and gain upon investments. Properly understood, all business, even of the soundest character, consists more or less of speculation: we must all be guided by the probabilities involved in the transactions in which we are concerned: we purchase a property or a security after weighing the chances, for and against, of its proving stable or improving: but there is the difference of the poles between judicious and deliberate ventures, which, from the nature of things, must involve chances or probabilities, and that extreme form in buying what we do not desire or intend to hold, or selling what we do not possess, simply for the purpose of realising an expected profit. The one man purchases to keep: the aim of the other when he buys is simply to sell when a gainful opportunity occurs.

8. I have already laid stress, in passing, upon the importance of the element of time in all monetary transactions—the power of waiting for favourable opportunities. And this is particularly the case where the investor feels at liberty, on account of his financial resources and knowledge, to engage in transactions whose fruition lies essentially in the future, and which, by reason of this special character and the intermediate absence of

interest, are beyond the investor to whom my advice is primarily addressed.

9. The ordinary investor must be content, if he wish to avoid loss, with a moderate rate of interest, say $3\frac{1}{2}$ to 4 per cent. This return is consistent with an investment which frees him from anxious and supervising care (of course, the rate will be higher upon mortgages, which will be discussed in the next chapter). I shall also show him in a succeeding chapter how to calculate the return derivable from a security standing at any price, whether it be of a redeemable or irredeemable nature. [I here refer to *permanent* securities.]

I am not an admirer or acceptor of the thoughtless dictum that high interest necessarily implies inferior security. Aphorisms of this cheap and idle nature abound in every department of life. An investment may yield a larger return than the average rate on the grounds (1) that it is a security which is not open or known to many investors, but has been discovered by men of exceptional sagacity, knowledge and opportunities of inquiry. The demand, consequently, being thus limited (since so few are acquainted with the security in question, or possess sufficient practical capacity to deal profitably with it) the return is, in the order of things, increased: it constitutes the reward of superior ability or courage; and (2) the transaction may involve considerable risks but also excessive profits if it succeed, and is only suitable, therefore, to capitalists of extensive resources and large ramifications of organisation, so that here, again, the absence of competition enhances the remuneration.

But, for the usual investor, the rate I have mentioned should be adequate, if he be a man of wisdom. It is pitiful to recall the vast amount of money which has been engulfed in the quagmires of delusive finance through pursuit of the deceptive lights which allure the chase. The metaphor is, perhaps, not of the happiest, but the moral is clear.

I remember that an investment was once submitted by one of the ablest men of business I have ever had the happy fortune to know: it confidently promised 15 per cent, and this promise was based upon statistics, technical advices, and investigations of the closest and minutest kind.

The investment was accepted largely by very competent

and experienced men in London and elsewhere. One of the shrewdest and most successful men in the City of London, however, refused it; and as I placed great dependence upon his practical judgment in commercial affairs, I naturally inquired his reason. He discovered, he said, no objection to the investment or its prospects, but he wisely added—and I have always remembered the advice as a salutary rule of life—that if the venture fulfilled his hopes and he obtained the 15 per cent he would in all probability become dissatisfied with his existing securities, which yielded a much inferior return: he would thus be tempted to dispose of them for the purpose of placing the proceeds in other ventures equally promising: he would consequently forfeit the quietness of mind which his present investments enabled him to enjoy, and he felt that, undoubtedly, in the end, this eagerness for exceptional profits would terminate in heavy loss. The same able man—and he had been exceedingly successful—informed me at the close of his commercial career that, taking into account his losses upon investments in various classes of undertakings, and weighing them against his gains, he would have stood in the same financial position had he, throughout his long career, confined himself to British Government Securities and similar investments, with their lower rate of interest.

10. An adage has strayed beyond the bounds of the Stock Exchange, and is thus expressed: "Take a profit, cut a loss": when the price has advanced beyond that at which a stock was purchased, sell, or the chance may not readily recur; while if it should decline below the purchase price, also sell, lest the descent should become deeper still. This may be a maxim for the speculator whose business is of a "sporting" nature, but if the investor constantly or frequently adopt it, all my labour in impressing upon him sobriety of judgment and the selection of investments which he can quietly and permanently retain, has been expended in vain. I am in no way an advocate of holding when exceptional advantages of sale occur, but the rule of seeking securities only which he can, and should, retain, is nevertheless, as a rule, the prudent practice of a cautious man. Frequent selling and rebuying are fraught with needless worry (which the profit does not compensate) and tend to

generate the speculative habit which finds its issue ultimately in loss.

Of all the abject aberrations of conduct—especially in financial affairs—the determination of a choice on the suggestion of what are vulgarly called "tips" is almost the most pitiable. Transferred from the domain of horse-racing, they usually terminate in similar catastrophes. But the influence of this tendency, when persisted, upon character and habit is infinitely more pernicious than the pecuniary loss, since the latter event may, in some instances, leave a permanent impress in the form of a decisive caution. This course conduces to disastrous confirmation of the immoral practice of gambling, too seriously ingrained already in the present generation; it abrogates all sobriety of thought, all wisdom of action, all patient and educative custom of deliberation, all the mental alertness which inquires; the character degenerates from steadfastness and forfeits its purity; the habit of recklessness becomes dominant. Vulgar and unreasoning eagerness for cheaply acquired material gains cancels the cultivation of any higher qualities of mind and spirit; and the man who might have emerged, by the personal discipline of studied events and intelligent activity, into a finer manhood lapses to the ignoble condition of an unthinking parasite.

A concluding remark may be submitted upon the frequent suggestion of what is termed "levelling" or "averaging" investments. If, for example, 100 shares in a company have been purchased at the price of £1 10*s*. per share (or £150 in all), and a decline of one-third occurs, the value of the investment then stands at £100, or £1 per share. The investor is then often recommended to buy an additional 100 shares at the reduced price; if he adopt that course, the average cost of the aggregate holding would then be represented by $\frac{150 + 100}{200}$ or £1 5*s*. per share, instead of £1. Trained all my life in assurance business where the fundamental conception is that of averages, I am not likely to disparage its application: indeed, in the suggestions respecting the distribution of the risks of securities I have emphatically enforced it; but my advice here to the ordinary investor is to refrain

from embodying the notion in practice. He will observe that if the company should further fail he has doubled his loss, and, generally speaking, a speculation upon its change to success will not be worth the risk which this increase of holding in a single security (especially in one which, as the illustration assumes, is liable to great vicissitudes) involves.

CHAPTER V

WHAT TO SELECT (*resumed*)

When the price of securities dealt in on the Stock Exchange are high—that is, when they return a lower rate of interest than the average—I have advised that it is generally preferable to place money temporarily on deposit until a fall of values enables a purchase to be reasonably effected. But, in such circumstances, the investor may often find it worth his while to consider a mortgage upon property, which will return a superior rate to that provided upon deposits, and a rate, moreover, which may be fixed for a term instead of varying with the Bank of England rate. And besides this occasion for directing attention to the subject, mortgages should form a part of the securities which the possessor of reasonably large means might consider and select. The subject of the purchase of houses and shops and ground-rents will necessarily, also, be included in this volume. All these modes of utilising savings, though they demand a most careful and judicious discrimination, form excellent investments, or, to employ preciser language, securities. For the term investment should be restricted to those cases where a person parts *finally* with a certain sum of money and accepts, in exchange for it, a claim upon the assets of an undertaking (to use a general word: in the instance of Government Funds, a claim upon the nation), which claim he can absolutely dispose of as owner, at any time, and thus reconvert it into money, though *not* necessarily of the *same amount* as that which he originally parted with; while in a security, he parts with his money only *for a time* on condition that the *exact amount* shall be afterwards restored to him, and be meantime protected by some "earmarked" property which he may sell under specified circumstances in order

to regain the *precise* amount which he had originally advanced. I will first consider a Mortgage[1] upon a freehold house or shop.

1. It should be ascertained that the property is situated in an established neighbourhood, or one which seems likely to be permanently attractive to residents. An intending lender is advised, as far as possible and convenient, first to inspect the property himself, and its surroundings. It is true that a first impression often requires modification on subsequent reflection and inquiry, but a first impression is in all cases of the greatest value; and I have generally found that if, looking with an unprejudiced eye, my first impression was unfavourable, I acted wisely, as subsequent events proved, in rejecting.

"Is it so true that second thoughts are best?"—"not first?"

2. The advance according to circumstances should not exceed 75 per cent of the value placed upon the property by the valuer whom the lender employs.

3. Any contract to lend should be expressed in writing; especially should the conditions of the loan be unambiguously stated, such as, that the Valuer's Report must prove satisfactory to the lender in all respects.

4. The valuer should invariably be appointed by the lender himself for the specific occasion; and the choice of this expert is very important, and is frequently dealt with negligently. He should not be (*a*) an architect, for an architect's function is to lay out money, not to estimate the price which a property will fetch; nor (*b*) should he be simply an estate agent, for his business is concerned with the management of properties and the collection of rents; but (*c*) he should be an auctioneer of house and shop properties, whose employment is the selling of them in the public mart. This latter knowledge alone renders him familiar with the actual and changing demand

[1] **Mortgage**: a form of security for a debt: from two words (Latin and French) signifying a "dead pledge." Coke explained the term to the effect that, on pledging a property for a loan, an accompanying condition provided for its release on repayment of the debt at a specified date, so that if repayment should not take place, the property was taken from the borrower and thus became dead to him, while, if repayment occurred, the pledge then became dead in respect of the lender.

by the public for such premises, and can furnish (according to his ability and experience) a sound opinion upon their probable selling value, and upon the prospect of that value increasing, declining, or remaining fairly stationary. He should be selected after inquiry by the lender, or, if he cannot do so, by some one in whose knowledge and judgment of men he can trust. The fee for valuation should always be paid beforehand by the borrower. In order to reduce as much as possible this preliminary cost to the borrower (since he will entirely lose the sum if the proposal for loan prove fruitless), it is often arranged that the valuer should charge a higher fee in the event of the advance being completed, and a lower one should the security be declined. This, in my experience, is an unsatisfactory arrangement for obvious reasons; and a fixed fee (which will range between the preceding amounts) should be settled and paid whether negotiations ultimately succeed or fail. Where the property proposed to be mortgaged is situated in a provincial city or town, a *local* valuer should be selected, as being necessarily more cognisant of the market than a valuer in London can be.

5. The valuer should state what he considers to be the annual value from a solvent tenant on a repairing lease; whether the premises are in sound condition: whether they are of such a class and in such a position as to be readily saleable at any time; and the sum which he expects they would be likely to realise both at the present time, or during the continuance of the loan. It is not always advisable for the lender to depend, as an index of value, upon any rental-agreement between the owner of the premises to whom he is proposing to lend and the existing tenant. It is to be hoped that the following incident does not frequently occur, but I remember an instance (the loan was happily rescinded in time), where, by collusion between the owner and tenant (which probably, however, was quite innocent upon the tenant's part), a written agreement for letting expressed the rent at £45 a year, but the owner, by separate arrangement, refunded £10 annually to the tenant: the real rental value was accordingly £35, but the owner fraudulently represented it on the document exhibited to the lender as £45.

6. The amount of rates and taxes paid by the owner should be ascertained, in diminution of the return from rent.

7. It should naturally be seen that the tenants in the neighbourhood generally are of a respectable class, and the surrounding houses occupied.

8. A respectable solicitor should always be employed to examine the Title, and prepare the Deed of Mortgage. Home-made contracts invariably lead to trouble and dispute, and not seldom to loss.

9. Assuming the loan to be found desirable, it is important that it should be fixed definitely for a period of five or seven years. It is often proposed that the advance should simply be subject to repayment on six months' notice at any time from either side. The disadvantage of this course is that if the current rate of money should fall (that is, if loans generally can be obtained on easier terms than those contracted in this agreement) the mortgagor will give notice of repayment, raise the advance, by transfer, from another source, and thus deprive the lender of an excellent security and entail upon him the cost and trouble of a substituted investment.

10. The character of the mortgagor—especially on the question of honesty and straightforwardness—should be carefully investigated from trustworthy sources before the valuation is arranged. He may and should furnish references, but (without implying any distrust) the replies of references are not infrequently limited and ambiguous, and the lender should invariably institute such independent inquiries respecting the owner and his references as will satisfy him that he is treating with a solvent and honourable man. The element of character as the foundation of credit is, as I have already stated, an indispensable requirement in all monetary transactions.

11. I have found it a salutary practice that the lender (or his agent) should occasionally inspect, say, the exterior of properties upon which he has lent in order to observe that the condition of adequate repair has been maintained. I have known of instances where this wise precaution was omitted, and, although the interest was always punctually discharged, the lender discovered, on the termination of the period of the loan (where it finally happened, that he had to enter into possession), that

through want of resources on the part of the mortgagor the buildings had been allowed to fall into so serious a state of disrepair that a heavy loss on sale was sustained. For the certain return of his principal unimpaired, the premises should necessarily be seen to be kept preserved in the same structural and internal condition as that which existed when the advance was completed.

12. The Fire Policies should be for such an amount as the valuer may report to be necessary for the rebuilding of the premises—in the event of *total* destruction by fire, not a partial loss—in the original state, and it is well also that one year's rent should be insured, so that interest may be forthcoming (to meet the possibility of the mortgagor being then unable to pay) during the re-erection. The Policy should remain in the lender's possession, duly assigned with notice to the company and in a Fire Company selected by himself.

13. A wise rule is this: never burden the Borrower with terms and conditions which are not reasonably requisite to render the security safe. For example, do not demand a higher rate than the current rate of interest upon mortgages, although his present necessities may compel him to accept whatever terms may be imposed: and again, do not require him to effect, say, a life policy as collateral security where such a supplement is not absolutely necessary. Remember that every needless burden entailed upon a Borrower renders him less competent to discharge his obligations, and thus reduces the stability of the advance.

14. It is well to avoid loans upon weekly-rented properties. They often form remunerative investments as purchases (from the pecuniary point of view), provided the rent be punctually and invariably applied for personally. I am informed that if the collector be half-an-hour on any occasion behind the time of his regular call, the rent, though ready at the prescribed hour, has vanished through the delay. But, both as subjects of mortgage and purchase, the careful investor will avoid these properties, since the cost of repairs and the incessant supervision are too troublesome to receive compensation in the additional rate of return which they produce.

15. I should have mentioned that both in respect of freehold

properties and of those of leasehold tenure (to which I now proceed), and whether for mortgage or purchase, if the intending lender (or investor) find on inspection that waste lands or fields, or old mansions with extensive grounds, exist in the close neighbourhood, the fact is frequently suggestive that the advance or investment should be avoided. For these spaces may (and probably will) be covered in time by the erection of small dwellings, and thus reduce the value of the superior property on which he has lent. A similar remark applies with especial force to any contemplated purchase of property.

If the security be *leasehold* certain additional rules apply, such as—

(1) The relation of the ground-rent (paid to the freeholder) to the rack-rent (or the full rent at which the premises can be to a solvent tenant upon a repairing lease): if the rack-rent be £40 the ground-rent should generally not exceed £5 or £6 a year. This relation naturally varies with the situation of the property: thus in the centre of the City of London the rack-rent will often be double only of the ground-rent. I am referring above to advances made upon houses in the suburbs of London.

(2) As a rule, for premises of the nature I am describing, the unexpired term of the lease should not be less than sixty or seventy years.

(3) The character here of the holder from the ground landlord is the more important seeing that the lease may be voided by an infraction of the conditions.

(4) The solicitor employed should also report upon the covenants of the lease, and whether they are of the customary character or unusually stringent.

(5) The margin will not be less generally than one-third of the selling value, that is to say, if the property be valued at £300 the advance should be restricted to £200.

(6) Assuming the security to be a sound one in all respects, the loan may still be properly made (notwithstanding the fact that the value is annually diminishing by mere effluxion of time), for a period of five or seven years, for the reason I have assigned, but upon the appended condition: the valuer, besides expressing the market value for sale at the present time, should

furnish also (approximately) the probable (reduced) value—due to the lapse of the term of the lease—at the date when the period for which the loan has been granted will expire; the lender should then stipulate in the Deed of Mortgage that this difference of value should be annually paid in equal parts, as instalments in redemption of the advance. Thus (merely for illustration) if the present selling price be £800 and its selling value at the end of the five years, say, be £700, the process will be as follows: with a margin of one-third the advance of, say, £530 will be effected; in order to preserve this margin approximately throughout the currency of the transaction the amount of the loan at the close of the five years should not exceed one-third of £700, or, say, £460; hence the difference of £70 should be repaid in the form of reductions of the advance by instalments of £14 a year.

In all mortgages, whether upon freeholds or leaseholds, the solidity of structure of the buildings should form a part of the Valuer's Report.

In all advances the lender should accept only first mortgages;[1] and further, the mortgage should be a legal one. An equitable mortgage is a deposit of the title-deeds, accompanied by an undertaking to execute thereafter a legal mortgage whenever required by the lender. But why adopt this imperfect course? When the lender demands a legal mortgage the borrower may be insane and unable to execute, or he may have meantime harboured adverse feelings towards the lender, and refuse to complete the deed except upon onerous conditions; and litigation is imminent.

In any mortgage it is never, or very rarely, desirable to lend money which is simply required to discharge debts by the borrower. Investigation should be made, and the result may be that the loan may still proceed, or extravagant and reckless habits may be revealed which render the proposed mortgagor an imprudent and unsatisfactory person to contract with. Wherever possible it is well to restrict these transactions to persons who desire to purchase the house in question,

[1] When the security consists of a second mortgage, the lender is entirely fettered in his action in every direction, since the first mortgagee possesses all controlling rights and remedies over the property.

or to utilise the money in the development of any business in which they may be engaged—a sign accordingly of the kind of borrower to be encouraged.

It is exceedingly unwise to make advances upon the security of manufacturing premises. Many of them, of course, may admirably suit this purpose, but the investor must consider the following contingencies in any instance which may be submitted to him: the possibility of an alteration in the demand for the articles manufactured, either from a change of fashion, or from competition at home and abroad, or from future deficient management; the two former causes may require large additional expenditure to cope with the altered condition, and the money may not be forthcoming; the practical impossibility in many instances, if the particular trade should fail or prove inadequately productive, of adapting the premises and machinery to other industrial purposes which may be more prominently in favour—so that, in some cases, there may exist the prospect of the mortgagee being left as his security with useless buildings and virtually bare land. The difficulty, naturally, is augmented if the property be held on leasehold tenure, through the necessary discharge of the ground-rent with no income, or insufficient income, to provide it. With these possible vicissitudes, which are difficult of measurement, the investor will prudently avoid these securities, however flourishing and stable be their condition. A similar remark applies to flats and mansions, on the ground of the vast competitive extent to which they have been erected, and the possibility of a change in residential fashion creating a serious general fall of value.

The purchase of properties (houses, shops and ground-rents) may be briefly considered.

1. The observations already made upon the situation and surroundings of the property are most vital here, since the investor's possible experience of vicissitudes is not limited to the brief currency of an advance, but extends as a perpetuity in freeholds, and for a considerable period where leaseholds are concerned. The possible adverse incidents are numerous and have already been described, but this fact simply suggests the greater caution and judgment in choosing the properties

to be bought. Owing to the existence in leasehold premises of a ground-rent, the annually diminishing value, and the condition that the buildings must be restored at the expiration of the term in a reasonable state of repair (which frequently entails considerable expenditure), the investor should select freehold premises only. In no class of investments is a judicious scheme of distribution of risks—in these cases, geographical distribution—more important than here. If three or four houses in the same terrace or the same street, or even in the same neighbourhood, be bought, a decline of value in that position will affect the whole of the investments, which might prove of serious moment to the owner. A description of these contingencies need not be furnished: changes in the social condition of neighbourhoods with a consequent diminution of rental and capital value are familiar to us all: it is merely necessary to add that the possibility of these vicissitudes should be fully present to the mind, and allowed for approximately in the price, and the position advocated is enforced that an average quality of risk in the aggregate of investments should be provided by investing also partly in municipal stocks, Colonial Government Securities and other approved forms. Before these purchases are effected a Valuation will naturally be requisite, and special attention directed to the permanent structural stability.

I should here insert a sound article of procedure which is applicable to the whole of the holdings of an investor, whether they consist of mortgages or Stock Exchange Securities, or the two combined, namely, that the total income derived from all investments and mortgages should not be treated as an income of profit to be expended or invested without reserve, but that a part of it, roughly proportioned to the character and extent of the entire investments, should be strictly regarded as of the nature of a sinking-fund—that is, of an annual sum, which, by accumulation, shall be held as a provision for restoring any losses upon the total principal which may occur from time to time. Since the most sagacious foresight cannot forecast the changes which may and must happen in securities of the choicest nature, the investor in this way adopts an enlightened and common-sense mode of viewing his holdings,

and prudently prevents the surprise and inconvenience which reductions of value, foolishly considered to be alien from *his* capacity of choice, generally occasion. I am glad to notice that an able writer on Finance, Dr Robert Giffen, has in one of his volumes suggested a similar course.

A reference to the purchase of ground-rents—as a capital form of investment in many instances, where the properties are freehold—may close this chapter. A is the owner of a plot of land: he lets it to B for a term of ninety-nine years at a rent of £50 a year, on condition that, within a brief specified time, B shall erect houses upon it possessing an aggregate rental value of £350, with certain covenants in favour of A, respecting, for example, the maintenance of the premises in sound repair. The lease would further contain restrictions upon the use of the houses for dwelling purposes exclusively, and would be rescinded—and all the expended capital of B forfeited in A's favour—should the covenants fail to be performed. On the expiry of the ninety-nine years the whole of the houses would become the absolute property of A, and B must meantime obtain the remuneration upon his outlay and the restoration of his principal by means of a sinking-fund out of the net rental he receives of £300 a year. A is accordingly the owner of (1) a freehold ground-rent of £50 a year, for which he can distrain upon the property, and (2) the reversion to the £350 a year when the lease has terminated. A's interest can be sold, and the purchaser would then become entitled to the complete (or twofold) rights which A possessed. If such a purchase be effected the value of the reversion to the full £350 a year gradually increases in value as the lease proceeds to its close; and since B and his assignees are bound, at the end of that time, to restore the premises to A (or his assigns) in reasonable repair, the purchaser from A of the ground-rent must be especially vigilant (while exercising a general supervision over the state of the buildings throughout) to see that during the final ten or fifteen years the covenants for repair are fully observed.

In such an investment the suggestions formerly submitted in connection with house property obviously apply; the proper distribution of such purchases in order to prevent the whole

becoming adversely affected by a change in the attractiveness of the locality for residence, by the substitution of an inferior class of tenants, with the consequent reduction of the ultimate income of £350 a year expected and paid for; and particularly, prior to the investment, should the solidity of structure of the buildings be certified by a practical builder. I call to mind a large number of houses built on such a lease from the ground landlord, and forming a terrace; immediately the last house at the end of the terrace was erected to the roof, three-fourths of the building summarily fell down; and it appeared to me evident that in consequence of inferior materials or workmanship, or both, the remainder of the houses were only maintained erect through each being buttressed on both sides by the adjacent buildings. The purchaser of the ground-rent and reversion, in this case, would enter into a forlorn prospect when the reversion arrived. And the present egregious and disastrous apotheosis of the so-called working man—cultivated as a mere source of voting power by all political parties—is in most striking contrast with—admitting admirable exceptions here and there—his absence of skill, carefulness and conscientiousness in the performance generally of his manual work. Investments of this nature yield an excellent remunerative return, but, for the reasons specified, demand especially thought and capacity of judicious selection when the element of perpetuity must form the principal consideration in decision.

The reference to the purchase of a leasehold ground-rent need be brief, since investors are counselled to avoid this class of security. In the preceding illustration, B may build the houses, worth in total £350 a year, upon a portion only of the leased land, and charge the entire ground-rent of £50 upon this section: he may then lease the remainder of the land to C for ninety years at a rent of £35, accompanied by the obligation that C shall erect buildings thereon worth a rack rental of £200 a year. B is then said to possess a leasehold ground-rent of £35 issuing out of the land let to C, for which he can distrain upon the whole of the property, which is worth £200 a year: and the same position, of course, is occupied by any purchaser from B. But the grave difficulty lies in the fact, that if C, or any of his assigns, violate the covenants contained

in the original lease from A to B, that lease and the sub-lease to C (which depends upon the former) become forfeited, and A, or his heirs or assignees, can absolutely claim the *whole* of the properties upon the entire land without compensation.

Without entering into any further explanation of the possible troubles attached to the purchase of a leasehold ground-rent, the investor will perceive that such a purchase lies outside his prudent regard.

Many other varieties of investment in different forms might be cited, but the survey would become tedious, especially as the general and specific rules advocated in this book are universally applicable, or can readily be adapted to each description. The necessity expressed throughout of individual care and judgment upon the materials collected in each instance for decision is confirmed by the consideration which we have devoted to every principal form of investment.

The limitations of human foresight, as I have stated, must necessarily involve risks in ventures, however skilfully and presciently they have first been studied. The following illustration shows how the most unanticipated factor in the depression of values may intrude. One would have imagined that mortgages and purchases of properties in attractive residential quarters of the West End of London (particularly those possessed of airy and spacious streets) would be permanently stable. And yet the introduction of motor cars and motor carriages, with the vibrations they create, their noise and smell, have, in many instances, produced a most seriously adverse effect upon the value of these securities and investments.

Every investor should prepare, and write-up as investments are made, the following simple books—

1. A register of his securities; specifying in respect of each—

(1) The number (1, 2, 3, 4) of the investment (or mortgage).

(2) The name of the government, corporation, company, and so on, whose obligations, stocks or shares, have been bought; and in mortgages the name and address of the borrower.

(3) The precise nature of the investment (or security),

debenture, preference stock, etc. (and, in mortgages, the situation and description of the property).

(4) The amount invested (or advanced).

(5) The price paid for the investment.

(6) The rate of interest and its periodical dates of payment (in the case of mortgages or leaseholds the recurrent instalments of principal and their dates should be noted).

(7) The date of redemption (or repayment of the mortgage debt).

(8) The dates of the payment of fire premiums (or ground-rent) and the amounts.

(9) The company or firm from whom the interest warrants will be received, and by whom the invested principal will be discharged.

2. An interest diary; to be divided into sets of two months each: thus, as a specimen, for the case of interest payable in January and July (and similarly for February and August, and so on)—

No. of investment.	Title of investment (or mortgagor's name) with the amount and rate of interest.	1909		1910		. . .
		Jan.	July.	Jan.	July.	

As the interest is received on each occasion a cross might be inserted in the relevant column.

Interest being paid half-yearly, the two months appear on the one page; if interest be receivable quarterly, say in January

and April, July and October, the entry of the cross will appear in the January–July column on the one page, and in the April–October column in another.

The register (which should be furnished with an index of the names of the governments, corporations, etc., in which each investment is made) should be consulted when a fresh investment is presented for consideration, so that the proper distribution of risks may be observed.

The register should be examined half-yearly in order that the prices paid may be compared with current values, so that (without becoming that gainer of ultimate loss, the professional speculator) any very exceptional opportunity (which may rarely occur) of sale and securing a special profit may be realised. But here—so important is the caution—remember that the *general* practice should be to purchase for permanent retention, and that the decrying of sound securities, the special praises of securities generally, the artificial inflation of prices, and the depressing effects of commercial crises, and "market" manœuvres, are essentially transient, and do not affect the intrinsic worth of genuine investments.

In a following chapter I shall briefly describe the mode of operation in what is termed the Money Market, and the manner in which the vicissitudes in value of securities occur; so that by an exhibition of the producing causes and their nature, I hope to afford ground for sobriety and calmness of judgment and decision on the part of the investor, if he have observed the preceding rules with intelligence and thoughtfulness, in the selection and retention of the investments in which his savings have been deposited.

PART II

AN EXPOSITION OF FINANCE

CHAPTER VI

TRADE, COMMERCE, AND INDUSTRY

UNLIKE the origin of the vast multiplicity of customs prevailing among people of different races—customs, with whatever local variations of form, essentially identical in nature—there is no mystery concerning the origin of trade. Its necessity lies in the material needs of men, and the fact that no set of men possess all the commodities which minister to those needs. Hence, the only mode in early times—apart from robbery or fraud—in which this exchange of the superfluous for the necessary could be arranged, may be thus described: A man possesses a certain kind of article which he does not wish to keep, or of which he possesses more than sufficient for his wants, and is therefore willing to part with a portion; and desires another kind of article which he does not possess, or of which he does not possess enough: another person happens to possess more than he requires of the article which the former desires, and is therefore prepared to dispose of some of it; and wishes in his turn to secure a supply, or a greater supply (if he already holds a stock), of the article which the former is ready to give up. The two must then in some way be brought together, and the exchange of articles be made. In simple and obvious cases—that, for example, of the fisherman with his spoil of fish, and the hunter with his gain of game—the process of exchange would be a ready one (as regards the articles themselves apart from their equivalence in value), but it is not difficult to imagine, in other less simple instances, what search and trouble would require to be expended (and often fruitlessly expended) before the two persons discovered each other, with the want on each side which the superfluity on the other side could alone supply.

This primitive and universal process is termed Barter [1] or Truck: [2] its peculiarity is that one article or commodity [3] is exchanged *direct* for another commodity. The fundamental nature of this operation is shown by the fact that modern commerce, with its numberless and intricate complications, is precisely an interchange of one commodity for another; that is to say, it remains in essence the original act of barter still. But from an early period the grave inconvenience, and sometimes the impossibility, of a direct act of barter, particularly as commodities and needs multiplied in form and use, became evident, and the *operation*—although, of course, the act itself was unaltered in character—of effecting exchanges of goods was simplified by the employment of a medium [4] of exchange—the process becoming now an indirect in place of a direct act of trade. If a primitive man owned a large fish, and required some different commodities in exchange of much inferior value, he could cut up the fish, and dispose of the pieces separately for the various articles he needed, although some waste would ensue; but if he possessed two hats (granting him, for illustration, a hat in those days) and wished to barter one for an article of less value, the utility (and, therefore, the exchangeability) of the hat would be destroyed by cutting it into fragments. Hence arose the origin of a medium for exchanging goods which was of a nature acceptable to all exchangers—shells, iron, and other fairly durable articles, which people cared to possess, have thus been employed as media. In more modern times, gold and silver have, in consequence of their durability, intrinsic attractiveness, and other qualities, become

[1] **Barter**: from an old French word, *barater*, to exchange (the original meaning of the French word was, to cheat, to beguile).

[2] **Truck**: from the French *troquer*, to barter, or chop.

[3] **Commodity**: from the Latin *commodus* (*com* for *cum*, and *modus*, measure, with measure), fit, convenient, suitable; thus a thing of use or advantage. The term Commodity is rightly extended in political economy to include any object, substance, action, or service which can give pleasure, or avert (or reduce) pain.

[4] **Medium**: from the Latin *medius*, the middle. The analogical use is evident; the middle connects the origin and end; and hence a medium (or means) of exchange is that instrument by which the one commodity is brought into contact with the other commodity in the exchange of the two.

the recognised material channel through which the interchanges of goods are conveyed. But while the original act of barter persists, the introduction of a medium obviates the precarious search by buyers for sellers, and sellers for buyers, by the substitution of two acts of barter in place of the primitive single act. But the two operations are the easier to perform: since, with an established medium of exchange, such as money, a person disposes of what he does not want to one who needs it, and receives, in exchange, its value in money; and this money he then hands to another person who is willing, in return, to give the commodity which he seeks. All commerce, then, remains a series of barterings of one material article for another, but, through the machinery provided by a medium, the act of barter ceases to be a direct operation confined to the two specified dealers.

It is a definite loss to distinctness in commercial language that the terms Industry, Trade and Commerce have, through slovenliness of custom, become practically confused and interchangeable, instead of maintaining their original separateness of significance which their formation, as fresh forms of business demanded new verbal marks of definition, imposed.

Industry[1] is properly a general or generic term meaning any systematic work or labour—work, that is to say, which is not of a spasmodic or isolated character; which does not consist of separate acts of work independent of other workers, but different acts of work united into a *system* and governed by an appropriate organisation. More especially, the term is employed as descriptive in connection with the productive arts or manufactures. Individual men may labour strenuously though working separately where the labour of each is detached from that of others; but immediately these isolated efforts are united into co-operation, and the whole of the workers exert their energies in conjunction as an organised body under a regulated system for a common general end, the term, industry, becomes applicable, whether the combined mass of workers be small or great. If we accept the suggested

[1] **Industry**: from the Latin *industria*, or diligence. The origin, however, is uncertain, but etymologists of reputation have suggested its formation from the Latin *indo*, or *in*, and *struere*, to build.

derivation from the operation of building[1] we obtain a notion of the meaning which the word industry was intended to embody. For the act of building necessarily implies co-operative kinds of work, and thus the etymology concurs with the preceding explanation. The caution, however, need hardly be added hat etymology is generally a precarious guide to the current uses of language. In the lapse of time, the needs of more exact and varied thought and discrimination may demand the specialisation of a term, or a restriction of its original scope of meaning, or again its generalisation in the form of the attribution of a wider significance than that which it previously possessed. And, occasionally, the usage of a term becomes directly opposed to the sense which it was invented to express. The activity and stress of business are sensitive to things, not symbols, and the carelessness and haste of usage introduce a further mode of change in the confusion of words which originally were quite distinct and applied to different, though cognate, events or conditions.

The etymology of the term *trade*,[2] however, still shows its designed use, for with a slight exercise of imagination we might connect its origin with its current usage by describing it as the path or way to the exchange of goods. Trade signifies the occupation or business of actually buying and selling commodities, and is so far distinguished from industry as being a species of that genus, and indicating the exchange between persons of the articles which particular industries manufacture or produce.

The term *commerce*[3]—though often confused with the word trade—is more particularly applied (where some distinction is

[1] The vast majority of the terms descriptive of intellectual and moral processes are derived from seemingly analogous physical operations: to **ponder** a subject is to weigh it in a mental scale (Latin *pondus*, a weight), and our **attention** (Latin *ad*, towards, and *tendere*, to stretch) is simply a representation of the physical act of the listener thrusting forward his face to catch the words more closely.

[2] **Trade:** from the Anglo-Saxon word *tredan*, to tread; and the term once literally meant a "path."

[3] **Commerce:** derived from the Latin *com* (for *cum*), together, and *merx*, merchandise or ware. The term has been in use only since the sixteenth century, when it was substituted for the earlier term merchandise.

attempted) to trade or the exchange of commodities, which is conducted upon an extended scale as carried on between different countries or districts, and includes the whole of the transactions and arrangements comprised in the process. A trade may be more or less local, but commerce as a general system of exchanges involves a wider circulation of the commodities. It will further be noticed that trade with any limitation of meaning, consists of those acts of exchange which are concerned with a particular kind of commodity: thus the coal trade deals only with coal, while commerce is a series of acts of exchange which deal with *all* descriptions of commodities miscellaneously. Two men may trade: commerce demands a mass of men. Commerce, in short, is national in its scope, as embracing mercantile dealings between different countries; while the term trade is more particularly restricted to special industries and the internal business intercourse of a country by itself. The spacious development of commerce from the year 1820 is attributable to freedom from protracted wars, the growth of population throughout the world, colonisation and the consequent creation of fresh markets, and the extended mechanical adaptation of steam and electricity, with their results of swift communication by sea and land.

Business activity, as I have said, is not a congenial soil for the growth of niceties of language, and, where character and the honourable fulfilment of obligations are dominant, looseness of expression is yet consistent with strictness of fair dealing. The reader should not, however, regard the preceding observations to be irrelevant. Precision of language as the reflex of exactness of thought is always imperative: the relations of action and reaction which universally prevail in the material universe exist also between states of consciousness (which we term thinking and reasoning) and their embodiment in language. The careful thinker strives after definiteness in the words in which he embodies his thoughts: the inexact thinker accepts the first, roughly relevant, word that occurs, and his obscurity of language is a fitting index to his confusion of mind. And in no region is accuracy of language more imperative than in those states of conscious-

ness which we term reasoning—and particularly on financial questions—for undoubtedly the vast majority of fallacies arise, not from error in the logical form of the argument but from the use by a reasoner (if, under these circumstances, he deserve the title), and more especially by contending disputants, of the same word in different senses, however subtle be the boundaries by which these senses are marked off.

Moreover, it will be found, if we examine our terms, that every investor is implicitly a trader, and should accordingly possess some serviceable knowledge of the events, conditions and contingencies which promote or retard the prosperity of our industries. If he be the holder of a Government Security, the value of his investment, or the price at which he could sell, is affected by the extension or restriction, the favourable or adverse nature, of the internal trade of the country, and the volume and advantageous character of the general commerce of the nation. The ordinary shares in a railway are prosperously or unfortunately influenced, not simply in value but also in the extent of the dividends, by the quantity and value of the traffic carried, which again depend, *inter alia*, upon the magnitude and frequency of the exchanges of goods.

It is obvious that credit, or trust, or confidence in each other is the final foundation of both ordinary and commercial intercourse. A recollection of some experiences suggests a practical expansion of the definition of Credit, as employed in transactions in business. Besides the essential implication of integrity of character and truthfulness in the persons or firms with whom we deal, and their established reputation for solvency and promptitude in the fulfilment of engagements, credit also assumes (1) the skill of the persons or firms (as tested by experience) in the administration of their business and commitments, and (2) their prudence in the range of their primary class of industry—not simply in the area of their obligations compared with the sustaining capital, but also—in respect of that principal trade not being associated with other departments of enterprise which, in nature and mode of operation, are not legitimately congruent. I have known of instances where

different forms of business were conducted under the same managers and capital with the result of bankruptcy in consequence of the incompatibility of the various kinds of undertaking and their diverse needs and demands. A prominent example of such failure may be cited (which occurred in practice) where one of the modes of combined business required a periodical "locking up" of resources, while the other kind fundamentally rested upon the constant availability of funds. A large and sudden demand upon the latter branch became coincident with a "lock-up" in the former, and the conjunction proved a catastrophe.

Large subjects so generally become infected with confusions of terms, conducing to deeper obscurity of thought and impotence of practical wisdom, that I am tempted to add a few observations. The misconception in commerce to which I here allude rests upon a common fallacy in the abstractions of language. We describe the *individuals* of a country under the generic term of a *Nation*, and then tend erroneously to regard the nation as a distinct *entity*, just as the individuals composing it form separate entities. A nation [1] possesses no meaning except as a collection of people bound together by community of race, laws, religion, traditions and customs. A familiar illustration of this ambiguity of conception may be derived from a common notion of our Consolidated Fund (established in 1786), which exists as the source of payment of the more permanent expenditure authorised by Parliament, and combining, for example, the charges of the Public Debt, the Civil List of Pensions, and the maintenance and administration of the Courts of Justice. When legislation is popularly demanded in any direction, it is not unusual for the people to request that the financial burdens which it entails should not be raised by taxation but defrayed from the Consolidated Fund, in forgetfulness of the fact that this Fund is itself composed exclusively of the proceeds of taxes. That Fund is thus viewed as an independent entity, showering affluence spontaneously,

[1] Obviously, in regarding a "nation," we must also include the Action and Reaction of Feelings (spontaneous, and continually varying in intensity) which incessantly mediate between the members; and the vital contagion which those feelings propagate.

as it were, instead of being a mere reservoir which has been supplied by gold already extracted from the people in the form of taxation. The cloud which breaks in refreshing rain has derived its wealth from the depleted earth.[1] We only gain a real and practical conception if, for the misleading jargon of "international trade," we substitute the simple fact that the imports and exports between countries (which are mutually exchanged) are in no intelligible sense international trading, but are solely the total of a vast number of transactions between *individuals* in one country with *individuals* in another, where each exchanger of goods seeks and gains a personal profit from the dealings. If I, in commerce, desire a certain article, it is of no consequence in my bargain whether I purchase it in England or abroad, so long as I secure the kind and quality which I wish, and at the price which I consider to be fair. It is simply sufficient for me to learn that the trader with whom I treat (whatever be his nationality [2]) is an honest and solvent man—a discovery which may sometimes prove a difficult and precarious process, particularly after vast social, economic and political upheavals. So that a prohibition to purchase from a foreign producer of raw materials or a manufacturer of finished products—when a war with his nation has closed in peace, and however deeply we may detest the base character of that nation as a body which the war has revealed—would be simply a gratuitous frustration of commerce and the levy of an additional tax upon my dealings by reason of the arbitrary restriction in the general satisfaction of my wants and the reduction of competition with its modification of prices. But necessarily (as regards the existing war, and indeed in any national crime) the admission of the German people hereafter into the comity of commerce and intercourse depends upon their definitely changed and repentant character for the dishonours and infamies, violations of faith and brutal methods

[1] The confusion here apparently rests upon the vague conception of "permanency" as attaching to a fund (or foundation), something existing outside ourselves.

[2] I am, of course, assuming here a period of peace, for trading with an enemy in time of war is one of the most infamous disloyalties which can be conceived.

which, on their part, the war revealed. Their character for honour, truth and humanity must be redeemed.

With the recognition of the fact that "international trade" is an erroneous phrase, and the substitution of the statement that it is simply individuals at home who transact with mercantile individuals abroad, we can more fully deduce the practical conclusion, just adverted to, and of special importance at this juncture. A preliminary Racial observation, as presented by history, must be integrally imported into the survey. Each distinctive nation—the people bound into unity by lengthy ancestry and community of race, habits, modes of thought and forms of industry—appears to possess some specialised aptitudes and tendencies in art, modes of commerce, or science, and other departments of intellectual and social labour, with which other nations are not so signally endowed, although they, in their turn, exhibit peculiar qualities intrinsically their own. Even, for example, a people not at all originative may display an exceptional patience, skill and minute ingenuity in extending or applying discoveries and inventions elsewhere made, and thus amplifying the world's stock of utility. These diversified capacities are nourished and directed by the specific nature of the soil and climate; the propinquity of the different raw materials for combined conversion into manufactured products; their forests and mountains as affecting meteorological conditions; and the volumes and courses of their rivers. Thus, as in a massive and complex system, every nation (that is, its people) is organically connected with every other nation in supplementing and compensating the deficiencies of each in the combined contribution to the varied necessities of the whole. The totality of nations is thus a genuine organism where each section is essential and ancillary to the integrity of the aggregate—vital molecules constituting a living mass. These separate capacities of endowment, or differentiated aptitudes and degrees of aptitude,—apparently innate in the different peoples forming distinctive nations,—gradually become organised by transmission, descent and continuous development—the line of least resistance, as in all natural processes, universally guiding their direction—until, ultimately (in accordance with the sound

induction of Mr. H. Spencer), they assume, by the consolidating force of heredity and persistent use, the aspect and power of spontaneous intuitions (or instincts) though, in reality, the evolved and laborious expansion of faculties with which, in rudiment—we know not how—the remote ancestors of those diverse peoples were aboriginally gifted. Consider, then, the current teaching consequent on the nature of this war, which, by criminal German precepts and practices, has degenerated from honourable strife, to which Britons are accustomed, into brutalised carnage. We are admonished, accordingly, to crush German trade; to oust forcibly German merchants hereafter from the arena of recognised competition and commercial intercourse. But, degraded beyond the most intensive scale of expression though Germany as a nation has become, there may yet exist those who "have not bowed unto Baal," or who have repented of that infamous deed. You cannot abrogate a nation; the force of natural evolution, of which that nation is a specialised result, is deeper than human intervention; the racial endowments of the people whom that nation embodies will persist, which enable them to resume their renewed and specialised share in the world's trading community; and their enforced disappearance from history (even were that event possible) would denude the race of one of the specific agencies with which the commercial integrity of mankind is linked. Such a process would enfeeble the economic welfare of other peoples by the forcible annulment of one of the mechanical and dynamical factors of a unified machine. Moreover, the Briton of common sense will ponder the practical problem thus: Obligations can only be discharged by means of savings; savings can only be accumulated by engagement in trading; and, this ground removed, the payment of indemnities—exacted by the righteously retributive justice of indignant peoples—becomes "melted into air, into thin air." But I clearly iterate that, similarly as regards individual offenders against righteousness, the German nation, as an inevitable credential precedent to inclusion within the circle of civilised peoples, must decisively manifest their sincere contrition for their perfidies and crimes in the past, since in even the most primitive intercourse, personal, social, and commercial, an imperious and ultimate

condition is the purified possession of a character for humanity, truth, and honourableness, or "social communion" degenerates into an idle and meaningless phrase.

[It should be needless to add that the preceding remarks apply to any prominent nation: the introduction of a particular nation being suggested simply by this special occasion.]

CHAPTER VII

MARKETS GENERALLY, AND THE MONEY MARKET IN PARTICULAR

In the Middle Ages the right or concession to carry on trade at a particular time and place was called a market,[1] as well as the locality itself where the trade was conducted. The term was also applied to the stock exposed for sale, and to the congregation of buyers and sellers. It is a striking example of the doctrine of evolution in its aspect of the dissipation of motion and integration of matter (that is to say, the gradual massing together of bodies by diminution of the intensity of forces producing separating movements), that markets tend to concentrate in particular spots. Thus we have the wool market, where sales of wool are arranged; the coal market, for dealing in coal; and others analogous to this distinction, as the Consol market in the Stock Exchange, where the dealers congregate in a separate group for the purpose of buying and selling Consols alone, while other dealers in the same Exchange, for example the railway market, carry on transactions in the particular stocks and shares indicated by the titles of their respective markets.

It is not necessary, however, that markets of any kind should be centralised; the traders may extend over an entire town, or region of country, in separated localities, and yet constitute a common market, provided that by means of fairs, meetings, published price lists, the telegraph, telephone, and post office, they are brought into close business communication with each other, so that, although the localities are distinct,

[1] **Market**, derived from the Latin *mercari*, to trade, and closely connected with the Latin, *merx*, merchandise or goods.

the knowledge that composes a free, open market is intimate and common.

A market, then, may be defined as any body of persons who are in close and constant business relations with one another, and who carry on extensive transactions in any commodity. A great city may accordingly contain as many different markets as there exist important branches of trade. In country towns we find markets composed of congregations of people for the exchange of provisions and live stock, and this formed the original implication of the word. The term has thus become extended in its range to any periodical or constant assemblies of both buyers and sellers, transferring commodities through the accepted medium of exchange between each other.

The term Market, too, is metaphorically applied: as when it is said there is "No market" at some given time for a particular commodity, or for particular stocks and shares—the meaning being that, owing to various causes, no transactions are practicable, or can be effected for the time being, in those commodities or securities, in consequence of the dearth of buyers, however desirous other persons may be to sell, or no sellers, however eager other persons may be to buy. In the former case a security may be deemed unsound or unprofitable, and the holder consequently is anxious to sell, but the same condition prevents a purchase; in the latter case a security may have greatly improved so that people wish to obtain it, but for the same reason the owner is unwilling to part with its possession.

The phrase occurs of "Making a market" and possesses an evil connotation. A new company—feeble of construction and forlorn of promise—is about to be launched; its intrinsic value and prospects of prosperity would not in themselves induce the public to subscribe for its shares; hence the manœuvre (termed "Making a market") is adopted of giving an appearance of demand and appreciation by purchases of shares organised by the promoters and their agents, which do not in any way represent genuine dealings or testify in any degree to the solidity and real attractiveness of the concern. Flattering reports are skilfully fabricated and

circulated, and mysterious hints are plentifully scattered of an unrivalled success; for no one knows better than the professional promoter the seductive efficiency of what are called "friendly tips" upon the credulous mind. Favoured admission, to the exclusion of others, forms a potent appeal. This forced show of demand (exhibited in the manufactured rise of price as an apparent sign of estimation) often imposes upon the public, and deludes them into the promoter's device of exchanging good money for worthless securities, whose only reality, indeed, is the certainty of subsequent lamentation. It need scarcely be added that brokers of character and reputation hold themselves aloof from these nefarious projects.

A market in any ware or stocks becomes "disturbed" when unusual circumstances have arisen (a threat of war, the failure of an important firm, a critical speech by a prominent statesman, here or abroad, and similar events) which especially affect the exchangeability or readiness of transfer of those wares or stocks: investors and speculators become alarmed by such occurrences and their possible consequences upon the values of securities, and hence refrain from buying, or endeavour to sell. A market (that is, the body of dealers in stocks, and the public with whom they deal) grows "sanguine" or "buoyant" when the particular articles dealt in are in large demand, and their prices thus advance under the stimulus of hopeful feelings, and confidence in future success; or a market is "depressed," "heavy," or "stagnant," when, from weakening or loss of confidence in the stability or prosperity of the companies or institutions whose securities are concerned, the buyers become scanty, and prices consequently fall.

The constitution and course of the organisation which is termed the Money Market now claims special attention, as practically the financial pivot on which the business of the nation turns; the word "pivot" suggests the closeness of analogy with the compass needle, both in the constant oscillations common to each, their erratic and violent movements under the influence of external stress, and their extreme sensitiveness—market and needle alike—to the faintest impressions from surrounding conditions.

The definition of "market," which has already been furnished, is also exactly applicable to the money market, which denotes no specific locality, but comprises the aggregate capitalists, bankers, merchants, traders, and the public who borrow or lend money, and by whom the rate charged for the use of money is settled as the result of their mutual transactions.

It will be convenient to divide this section into the three inquiries: the nature of the article dealt in; the dealers; and the manner in which the dealings are effected. It will be seen that the process is entirely an exchange between persons of what one desires to obtain, and the other wishes to dispose of on an equality of value, and that the principle of supply and demand [1] is still the determining factor.

The article dealt in is money [2] in the shape of loans for purposes of trade, commerce and financial operations—the exchange consisting of so much money for so much security. Money, in popular conception, is considered to be synonymous with gold or silver that has been coined into the several denominations which are called currency [3] (though it will

[1] **Supply and demand**: these words form simply the shorthand expression for the relation between the number and intensity of desire of buyers and the amount of the stock of goods available at the time for their wants. If the supply be small, and the buyers many and eager, the latter compete with each other for the stock by higher offers. If the supply be large, and the possible purchasers few and indifferent, the sellers must, in their turn, bid against each other by reducing prices.

[2] **Money**: derived from the Latin *moneta*, a surname of Juno, in whose temple at Rome money was coined: hence the term Mint also. The literal sense of *moneta* is the "warning one," from the Latin *monere*, to warn, to admonish—literally, to cause to remember. Cicero states that Juno was also worshipped as *Moneta*, or "the admonisher." The term Money affords a striking illustration of the vagaries into which a superficial derivation may lead. It is not derived from the quality here attributed to Juno, but from the incidental fact only of her temple being used as a place of coinage. In these ancient times the temples were utilised as banks for the safe keeping of money and valuable articles on account of their deep foundations and massive construction—impervious to thieves—and also of the tutelary sanctity which they possessed. Possibly similar reasons suggested the temple as a place for coinage, by reason of the safety and secrecy which the process involved.

[3] **Currency**: derived from the Latin *currere*, to speed, to pass quickly. As running is the rapid progress from point to point in space, so currency forms the means of the swift passage of goods from one to another person.

be soon observed that this term carries a wider sense), that is, portions of a valuable substance which are current or flow (the implied metaphor is somewhat mixed) between persons, as conveying, so to speak, a commodity from the one person who wishes to part with it, to another who desires it. But the term Money possesses an extended meaning, and applies to Representative money in the form of banknotes, cheques, and bills of exchange—all of which are promises to pay given by one person in favour of another—the cheque being an order upon a banker to transfer the sum expressed to the holder of the cheque, and containing therefore an implicit assurance to the receiver of the document that a sufficient amount of money belonging to the drawer of the cheque is in the possession of the banker for its discharge. A bill of exchange is a written order upon a person to pay on a stated date a specified sum of money to the person by whom it is drawn, or to any person to whom he may assign his rights, in consideration of the equivalent value of goods which the drawer has supplied.

The acceptability of these paper substitutes necessarily rests entirely upon the degree of credit[1] which the givers possess; in other words, the confidence which the receivers repose in their honour and solvency, and the consequent belief in final convertibility into the actual gold which the documents represent. It is really, then, gold that is circulating in this economised and facile shape, so that the popular notion of the identity of money with gold is substantially justified. And hence, in periods of financial unrest—the root of which is the distrust or diminished confidence of each man in the solvency of those with whom he traffics—paper money cannot be circulated, since the certainty of its prompt conversion into gold—or indeed, its conversion at all—has become undermined. This state is expressed by the phrase of a decline or failure of credit or trust. (*See Note A*, p. 121.)

Thus the article dealt in on the money market is money lent and borrowed for the selling and buying of commodities; loans to be employed in conducting and extending business

[1] **Credit**: Latin *credere*, to give as a loan, to lend: then by *metonymy*, to entrust, to confide, to trust to, to confide in, to believe.

enterprises, and advances for investment in Stock Exchange Securities.

The dealers in money consist of the aggregate of lenders at interest, and the merchants and others who are willing to pay for the use of capital[1] which they do not possess in sufficiency but which they can command by pledging securities which they do possess. Indeed every dealer in the money market is both a buyer and seller of money; he is prepared to lend or sell the use of money at a stated price, but he is also ready to borrow or buy the use of money at another price, so that if he can obtain its services from one person at a given rate of interest he may employ it in advances to another person on higher terms and thus secure a profit in the difference of price. He may, for example, borrow from a bank on security and pay the interest required, for the purpose of lending the amount to traders upon security, who will allow him a higher remuneration for its use in business, or he may lend it, on superior terms, to the Government, or a municipal body, or a railway, in the form of investment in their stocks and bonds. The banker himself is simultaneously a borrower and a lender; he borrows the savings of people in the form of deposits upon which he allows interest, and these sums he advances to merchants and others for their different purposes at a higher price.

The dealers or traders in money, in the shape of loans on securities, and the discount[2] (or immediate payment in money under deduction of interest) of bills of exchange maturing at the expiration of a brief specified period, are the Bank of England, the joint stock banks, the few private banks, the discount houses and bill brokers, the larger mercantile firms which have funds to lend from time to time, and the Stock Exchange, where some of the more important dealers also lend. As a general rule however, the term "the

[1] **Capital:** the term answers to the Latin *capitellum*, diminutive of *caput*, the head; then applied to the head of a pillar which supports the upper structure of a building; and hence figuratively transferred to the funds of a trader, company, or corporation which serve as a basis or support for commercial and other operations.

[2] **Discount:** from the old French *des* (the Latin *dis*), apart, away, and *compter*, to count; to make a deduction for payment in ready money.

market" is restricted to the joint stock banks, the private banks (which are gradually diminishing in number), the discount houses and the bill-brokers, since (owing to the preponderant development of joint stock banking) the Bank of England[1] does not now possess the commanding power and influence which it formerly exerted over the rate of discount as an extensive holder of mercantile bills;[2] while the operations of mercantile firms in the advance of loans are more or less of an intermittent character, and the Stock Exchange is rather a customer for money from lenders than a dealer itself in money.

Thus the monetary requirements of the commercial and investment markets (for the purchase and sale of commodities, and capital for the purchase of securities) are provided by the money market; and the activity of the money market—the volume and frequency of its advances—varies with the expansion or restriction of the business in the markets named. The medium employed in the money market in the grant of its loans is the cheque or order for money upon a bank; if a loan be obtained upon the pledge of security the borrower's account is increased by the amount, and upon this he draws cheques in settlement of his varied indebtedness; if a bill of exchange be discounted the same process is pursued, for, like a cheque, the bill of exchange is simply an order for money upon some person or firm—the obvious difference, that in the one case the order is to be executed at once, and in the latter case at the end of a definite period, being cancelled by the arrangement for discounting the bill or reducing it into ready money.

The *supply* of funds available for loans and discounts will depend upon the extent of the savings of the country deposited with banks and other financial houses, and on current account, which can be utilised in loans. The nation in ordinary times earns more than it spends, and this surplus, unless diverted

[1] The unique position which the Bank of England occupies, and its dominant sway over the financial world when occasion arises, will be hereafter described.

[2] **Mercantile bills**: bills drawn by merchants on each other expressing the price of goods sold and bought, and evidences of the debts thereby created: derived from the Latin *mercari*, to trade.

directly into extension of trading operations, or placed in investments, flows, as deposits, into the banks, whence it percolates into the money market generally in the modes already described.

It has been estimated that of the supply of money thus held by the banks, 95 per cent is employed in advances for promoting the industries of the country throughout the world, while only 5 per cent is retained in cash.

The *demand* for this supply will depend upon the fewer or more numerous business transactions which require to be settled: in other words, the briskness or slackness of trade. Increased trade will create a larger number of Bills of Exchange as the evidence of indebtedness thereby created, and the representative mode of its discharge; and the greater the volume and value of bills the more augmented the demand for money for their discount. Many other causes will affect the range of this demand—enlarging or contracting it—but all associated with the state of commerce and trade: the soundness and genuineness of business as well as its mass; political, financial and social conditions and difficulties; the current extent of credit or trust in each other's capacity to fulfil his obligations; and the scope of investment in securities on the Stock Exchange.

Finally, the relation between the amount of the supply and the concurrent amount of the demand will determine the *Rate of Interest* or the extent of the consideration required for the use of funds. If the demand exceed the supply, this rate will obviously ascend until an equilibrium is established; and a reduced rate marks the fact that the supply is excessive for current requirements. The terms for loans are mainly based upon what is termed the "official minimum" of the Bank of England, or the lowest rate at which that Bank will lend to its customers, since this affords a reasonable index to the intensity or feebleness of the prevailing competition for money.

It has already been pointed out that the entire commercial and financial fabric is built upon credit or confidence in each other: trust in character, in soundness of business methods, and in solvency. A Bill of Exchange, for example, is readily accepted in discharge of a debt, when the receiver feels

assured, from personal knowledge or general reputation, that it represents a genuine sale of goods; that those goods supporting its value are existent; that the person upon whom it is drawn is of established repute and standing; and that, consequently, the bill is equivalent to cash.[1] The extent of credit, obviously, is incompetent of numerical expression, but its measure at any time is furnished by the number and value of the commercial transactions which are undertaken and completed upon its basis.

The Bank of England is merely an independent joint stock institution; but, in consequence of its acting as the banker for the Government (receiving the nation's revenue and discharging its obligations), and issuing the payments of interest upon the National Debt, popular conception usually, and erroneously, regards it as the national bank, or a department of the Government service. Without dealing with its formation and history (beyond stating that its incorporation was conceded on condition that its capital was advanced as a loan[2] to the Government of William III for the prosecution of the war with France), it will be sufficient to explain its present constitution and functions. As the basis of this exposition I will examine its Return (or the statement of its financial position), which is before me as I write.

The Bank, originally, was constituted similarly to our existing banks, and simply, like them, conducted its business with the same ends of the preservation of solvency and the benefit of its stockholders; no separation of functions distinguished it from the form which those banks present, and the withdrawal of its notes by payment in cash rested upon its

[1] An **Accommodation Bill** (Latin, *accommodare*, to adapt, to suit), on the contrary, is a deliberate fiction intended to impose: the "value received" which it expresses is an untruth, since no sale of goods has occurred as its justification: and the worth of the bill is the worth of the paper which the deceit defaces. It is perhaps not fancible to suggest that a bill of this nature was so called (in distinction from a genuine bill representing the exchange of goods) on account of its being simply drawn in order to fit or suit the circumstances of the parties to it in bolstering up a credit or reputation which does not really exist, by imitating a real bill.

[2] The original loan of £1,200,000 has been increased by subsequent borrowings by Government to £11,015,100, and appears in the Bank's account under the title of "Government Debt."

general financial condition. But during the commercial crises of 1796 and 1825 its store of gold became so seriously depleted that its notes could not have been discharged in cash had not the Government, in the first crisis, permitted it to suspend cash payments and pay its dividend-warrants and make its discount of bills in notes alone, by means of an extension of the note circulation. During the second crisis, when a similar efflux of gold occurred, the restriction of cash payments was again suggested by the Bank, but this grave measure was happily found, in the end, to be needless. On the occurrence of similar embarrassment in the Bank's position in 1839, a committee appointed by the House of Commons recommended (on the valid ground that the solvency of the nation depended upon the condition of the Bank) that the integrity of the notes issued should (in respect of their immediate conversion into cash) be finally placed beyond doubt or apprehension.

When, accordingly, the charter expired in 1844, a Bank Act was passed—Sir Robert Peel affirming that the primary object which he contemplated was "that the paper circulation should conform itself to gold; that it should fluctuate like gold." Upon the provisions of this Act the constitution and functions of the Bank are founded; and its essential feature is the division of the Bank into an Issue Department and a Banking Department, with a complete separation as though they formed independent institutions, excepting that the amount of notes contained in the banking department is guaranteed by an equivalent store of gold and securities in the issue department.

The purpose of the issue department is the preservation of the instant convertibility of notes into cash, independently of any vicissitudes of trading to which a banking business may be subjected from time to time. The security for the amount of notes for which the Bank is liable is composed of (1) the debt due from the Government, (2) other securities within a prescribed and automatic limit, while (3) the balance to make up with (1) and (2), the amount of notes in circulation, must consist of gold coin and bullion.[1]

[1] **Bullion** consists of the precious metals (gold or silver) in the mass or lump, as distinguished from *coin*, or bullion melted down and manufactured into coins. The term is also applied to coined gold and silver

The nature of the "other securities" contained in the issue department is not specified, but, undoubtedly, they consist of the finest Government and other investments. Dealing with the bank return of September the 24th, 1908, the "other securities" were valued at £7,434,900; the "Government debt" amounted, as already stated, to £11,015,100; their sum was £18,450,000; and as the notes then issued amounted to £55,366,805,[1] the difference of £36,916,805 expressed the value of the gold coin and bullion which the department then possessed as the actual protecting fund in cash for its liabilities under notes.

The banking department is conducted on the same principles as those which govern the business of the joint stock and private banks. Here on the left-hand (or liability) side of its account we find an amount of "public deposits" consisting of the balances of the funds of the national exchequer, of the savings' banks, the deposits of the Commissioners of the National Debt, and the sums held for the payment of dividends on Government and other stocks which the Bank administers. The aggregate amount is stated in the return to be £7,639,534.[2]

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when considered, not as coins, but simply with reference to their value as raw metallic material. The derivation of the word is obscure, but it is connected with the Latin *bullio*, to be boiling, or to be in bubbling motion or a state of ebullition, and ultimately from *bulla*, which means any object swelling up and thus becoming round. The primitive notion implied, however, if correct, must have passed in process of use from that of "boiling" into that of "melting," which is the English employment of the term.

[1] This amount can be increased (against securities) to the extent of two-thirds of any independent right of issue of notes possessed by other banks which may lapse from any cause from time to time. At the beginning of 1909 the authorised issue of notes of the banks which continue to exercise this privilege amounted to £1,204,490. When, accordingly, this right should completely be abandoned, the Bank of England may augment its circulation of notes against securities to the limit of about £800,000. But any increase beyond this limit (when it comes into operation) is only allowable to the extent of an additional and equivalent amount of gold coin and bullion.

[2] The Bank, it will be remembered, receives the national revenue (for the Government) collected by the Customs and Excise officers; on the other hand, the disbursements which the Government has to make to the Army, Navy, and Civil Service are effected by cheques on the Bank; and, further, the payment of the interest upon the National Debt is also discharged (on behalf of the Government) by the Bank.

There are included also "other deposits," amounting in the cited Return to £44,292,844, and composed of the sums lodged with the Bank for security by its customers, and the cash balances which the banks of the kingdom retain with the Bank of England as constituting part of the entire national reserve. On the right-hand side, furnishing the assets[1] which the Bank possesses to meet its liabilities, we perceive (besides Government securities) an item termed "other securities," which, though no description is furnished, are undoubtedly of the highest character;[2] notes representing £26,564,120, and gold and silver coin amounting to £1,654,033. The notes here specified (sometimes termed Notes in Reserve, that is, not in the possession of the public) form part of the notes included in the issue department of £55,366,805. The notes in the banking department may clearly be regarded as equivalent to cash, since their convertibility is assured by the coin and bullion and securities which the issue department holds.

Here it may be remarked that what is termed the Active Circulation of Notes—the amount of banknotes, that is to say, actually in the possession of the public and passing from hand to hand in the payment of debts—consists of the difference between the notes issued (£55,366,805) and the notes retained by the banking department (£26,564,120), or £28,802,685. In earlier times the extent of the active circulation was important in affording a measure of the volume of national commerce, since notes constituted a considerable portion of the currency employed in its conduct, but this significance is meagre now in consequence of the development of joint stock banking, whose cheques form the principal medium through which commercial and financial transactions are arranged.

In the left hand (or liability) side of the banking depart-

[1] **Assets**: from the Latin *ad*, to, and *satis*, enough, up to what is enough—substituted for the simple *satis*; the original meaning in law was that of a sufficient estate or effects (with which to discharge a debt or claim—to pay, for example, a testator's debts or legacies); it was then extended to any property or effects to be applied to the preceding purposes without regard to its sufficiency.

[2] Besides the investments made by the Bank, this item includes the bills which have been discounted and the advances granted to customers on the deposit of securities. (*See Note B*, p. 121.)

ment's account occurs an important item termed the Rest,[1] and in the return under examination it amounted to £3,711,912, and represents the excess of the assets over the liabilities in the banking department.

The Rest is of the nature of a reserve fund, and consists of the accumulated and undivided profits realised during the past by banking operations. Its amount affords an index to the rate of dividend upon the bank's capital, which will probably be declared from time to time, since it is the traditional practice of the bank so to limit the dividend (which is provided from the Rest) that this fund shall never be reduced below £3,000,000.

A practical caution is needed here. The Rest may be considered as the reserve held by the bank to the credit of the stockholders as a protecting fund for the subscribed capital—an internal safeguard, so to speak; but it is totally distinct and different from the Reserve hereafter to be explained, which expresses the cash security for the fulfilment of our entire commercial and financial indebtedness—furnishing, therefore, the external reserve or national protective fund.

The banking department differs in no way from ordinary banks in the conduct of its business; deposits are received for safe keeping from its customers (on which, however, unlike joint stock banks, no interest is allowed); advances are made upon securities, and bills of exchange are discounted.

The term Reserve[2] is not mentioned in the Return, nor is its amount separately expressed, but the elements of which it is constituted are individually furnished, so that an exact calculation is practicable. This provision is the predominant question of scrutiny by the financial world when each week's return is

[1] **Rest**: derived from the Latin *re*, back or behind, and *stare*, to stand: meaning that which remains or is left over. It is interesting to note that until 1722 the bank periodically divided the whole of its profits among its stockholders, and created no reserve for contingencies. Hence the dividend fluctuated widely, and varied from 18¼ per cent. in 1706 to 6 per cent. in 1722. Emergencies were then met by making calls upon the proprietors. But in 1722 a sounder policy prevailed, and the Rest was formed.

[2] **Reserve**: derived from the Latin *re*, back, and *servare*, to keep, to save. The old French word *reserve* meant a store; and we have a similarly formed term in reservoir, or a place where water is kept back or stored.

studied—the extent of this reserve or the amount of cash which the bank possesses—for on its sufficiency depends the solvency of the nation, as will hereafter be perceived. Let us ascertain its amount at the date of the return we are considering.

It is perhaps needless to impress again upon the reader's mind the vital significance of this Reserve. It has been pointed out that the circulation and acceptance of representative money —notes, cheques and bills of exchange—employed in the satisfaction of mutual indebtedness in commercial and financial transactions depends entirely upon the conviction that it is really representative; that gold certainly exists for which the paper currency can be exchanged; that, in short, gold forms, in reality, the medium of exchange for commodities, though, for reasons of convenience and rapidity of transfer, documents are utilised; and the sole depository of this national fund of gold, as the foundation of commerce, is the Bank of England. The notes in the banking department (referring to the return now scrutinised) amounted to £26,564,120, and as they are protected by the gold coin and bullion (and other assets) in the issue department they can properly be regarded as cash: the banking department contained, in addition, £1,654,035 of gold and silver coin. Summing these two amounts we find that the banking cash reserve then existing was £28,218,155. Now a reserve is not an absolute but a relative figure; it tells nothing definitely and conclusively in itself. A bank may hold £10,000,000 of coin in reserve and yet be less solvent than one which possessed only £1,000,000. The adequacy of the reserve (or the cash to satisfy obligations) can only be measured by comparing its amount with the liabilities for which it is intended to provide. What, then, was the extent of the liabilities the bank was required to meet at this date? These consisted of the "public deposits" of £7,639,534; the "other deposits" of £44,292,844; certain bills representing £53,309, or an aggregate of £51,985,687. A sum in proportion accordingly shows that the cash reserve of £28,218,155 amounted to 54·28 (or about 54¼) per cent of the liabilities.

The joint stock banks do not maintain specific reserves in cash of their own as a provision for extensive and exceptional contingencies; such as a commercial crisis or general failure of

credit when, in consequence of a widely spread distrust among the mercantile community in each other's solvency, the exchange of goods becomes practically reduced to an actual cash basis, which entails an abnormal demand for gold from the banks. They simply retain sufficient cash in their tills for the payment of cheques in notes or coin in the ordinary course of business—the amount of which they are able, from the experience of the past, to predict from day to day. But any cash reserve adequate for the excited and concurrent claims which have been mentioned they do not maintain. They possess sound assets, it is true, in the form of investments in Government and other approved securities, but these would not be available to discharge the clamorous calls of their customers for the cash which alone is acceptable in periods of alarm. An attempt to realise these securities in the market at such a time would be inevitably futile; none would possess the cash with which to buy; and even if a store of cash were available, none would invest in securities which, in the common apprehension and disturbance, were apparently destined to sustain a continuous fall. The banks, then, cast upon the Bank of England alone the duty of providing the total reserve for preservation of national solvency, by keeping large accounts with that bank.

Consider now the modes in which this Reserve can be affected, and the nature of the protective measures for ensuring its integrity, with the manner of their operation. The bank can directly increase its store of gold by purchasing the metal imported into the country in the form of bullion (or bars of uncoined substance) or of foreign gold coins which, if necessary, can be melted into pure gold free from its alloy. For these purchases the bank, of course, pays the equivalent value; as the exchanged value assumes the form of notes, the stock of gold can thus be augmented; and with any addition of gold to the account of the issue department, the banking department can hold an increased fund of notes which, as has been observed, may be treated as cash, and thus improve the cash reserve. But let it be remembered that the notes thus granted in the purchase of bullion can be presented at any moment for instant conversion into gold. Now this accumulation of gold—

by reason of its constituting the sole reserve which merchants and their banks possess—is subject to every influence which governs the transference of bullion from one country to another, and equally subject to demands for gold occasioned by the varying condition of our internal trade. Any important depletion of this stock is termed a "drain." [1]

Some of the causes which extract the Bank's gold are periodic in their nature, and occur and recur with approximate regularity of incidence and amount; prediction in these cases is obviously possible, and adequate measures are thus competent of adoption in proper time. Other causes are uncertain, and of an exceptional character where, frequently, accurate foresight is impracticable; every grave malady, however, is heralded by premonitory signs or symptoms by which its full advent can, to an extent, be foretold, and preparations for its abatement arranged.

In the autumn of each year, about the beginning of October—as an example of a periodic drain—a reduction of the Reserve is caused by the requirements of the season for capital to be employed in purchasing the products of the harvest, the payment of agricultural wages during the summer, and the money already expended in holidays and travels which has diminished the store of ready cash. [It will be borne in mind that cheques and notes paid, for example, for Continental trips during the summer may pass through many banks and persons before they are finally presented for discharge in cash.] These recurrent drains, though they may produce inconvenience for the time, through temporary reduction of the extent of loanable capital and a consequent rise in the rate of discount, do not possess a permanent effect upon the amount of money available for advances. The wages paid in cash to the labourers, for example, pass to the small shopkeepers for goods; they are then transferred into the keeping of the local bankers; thence are remitted to their banking agents in London; and, finally, after the retention of a proportion for the daily cashing of

[1] **Drain**: originally to draw off or away a liquid gradually, or in small quantities, by means of a conduit: hence the word drain-pipe; then the word was used to describe the *act* of drawing off; and is now employed figuratively for a constant or gradual withdrawal.

cheques, find their way into the Bank of England Reserve as part of the balances which the joint stock banks deposit with that central body. The drained-off water, so to speak, reflows to its spring.

The general quarterly payment of salaries, rents, bills and the dividends upon Government Securities at the beginning of October concur with the preceding demand upon the Bank's metallic resources, and it is evident that if these claims were coincident with any considerable requirements for gold abroad, the dimensions of the combined efflux of gold may sometimes amount to the extent of a panic.

In the demand for agricultural wages and other disbursements in the autumn it is the country banks of the different districts which first feel the strain: the replenishment of their resources is obtained from their banking agents in London, and these in turn restore their diminished stock by drafts on the Bank of England. Thus in every financial derangement and difficulty the citadel of the nation's solvency sustains the shock.

We may roughly discriminate the domestic causes which effect a reduction in the Reserve, from those which are of a foreign origin. The former comprise such events as extensive speculation in trade, commercial distress, banking panics, and deficient harvests. The inferiority of harvests necessarily means a loss of wealth which might have been employed in the purchase of goods of every description, and the consequent increase of trade: the money sunk in the buying of seeds and manures, the wages spent in the labour of agriculture, and the anticipated profits have thus been largely wasted. Hence money has become less plentiful, and money, instead of being accumulated, must be expended in importing a larger supply of wheat from abroad for the consuming needs of the entire country. And the Bank's Reserve must suffer. [A brief history of the recurrent course of trade from a sound beginning to a calamitous close, with the involved effect upon the prices of securities, will be furnished on a later page.]

A reference cannot be omitted to the more significant and less predictable outflows of gold which are associated with the foreign exchanges. Reverting first, however, to the distinction

between domestic and foreign causes of an abstraction of gold, it may be mentioned that money may be required abroad for the probable prosecution of war, and the necessary preparation and equipment; for the purpose of restoring commercial confidence and the relief of distress in foreign countries produced by excessive local speculation and over-trading: or a drain may assume the form of floating foreign speculative undertakings or legitimate loans in the English market, in which British capitalists may invest. For human nature, whatever be the race or clime, is fundamentally one, subject to the excited vicissitudes of feeling and recurrent hallucinations which find expression in actions fraught with disaster and misery to every section of the community.

Withdrawals of gold obviously cannot be effected without a concurrent equivalent exchange; and one process of abstraction is that of employing Bills of Exchange possessed by foreign banks and merchants and drawn upon English firms (being documents expressive of indebtedness for the purchase of foreign merchandise); discounting them here, and turning the proceeds into gold.

A few illustrations of the mode may be useful. A foreign merchant may export (or sell) goods to England: his correspondent in this country who receives the price of the goods may find that the cost of British commodities suitable at the time to be purchased with the proceeds and dispatched abroad for sale, is too high to render the transaction profitable to his chief; hence, instead of investing in British commodities with the proceeds, he obtains cash and remits. Or the foreign merchant may sell the bill of exchange which he has drawn for the goods upon the British receiving merchant to a local dealer in money; and if gold should be required at the time abroad the dealer will draw the proceeds of the bill in specie [1] and dispose of the specie at a profit. Or, again, the rate of interest current in the foreign centre may exceed that obtainable else-

[1] **Specie**: Latin *species*, a kind subordinate to a genus or larger class: from *species*, a look, appearance—the ultimate verb signifying to look, to see. *Specie* is the ablative, and the phrase arose of *in specie*, in kind, so that "paid *in specie*" was equivalent to "paid in *visible* coin": coined money.

where and thus favour the importation of money for advantageous utilisation in local loans rather than the receipt of exchanged material articles. A credit also from abroad may be obtained with a London banker by discounting bills or selling securities; making use of this credit by demanding the proceeds in Bank of England notes; converting the notes into gold at the issue department, and withdrawing the gold. Or bills on London firms (the evidence of indebtedness for exports to England) may be purchased in the foreign money market, remitted here for discount, and resulting, by the procedure just described, in a diminution of the Bank of England's resources.

It is further to be noted that it is not necessary to suppose that bullion is exclusively exported from England in order to discharge a prior state of British indebtedness to foreign exporters of commodities to this country. For bills may be created by a foreign bank upon its London agents; and if the house be substantial and in credit the discount of these documents can be arranged, and the proceeds, as already explained, diverted from England in gold. [The bill, of course, must be satisfied or met at the date of its maturity.]

And finally—as already hinted—if, for example, the rate of discount in London be 3 per cent, and that prevailing in Paris be 6 per cent, the meaning is that gold may be bought (that is, borrowed) for 3 per cent in London, and sold (that is, lent) at 6 per cent in Paris, or a profit earned of 3 per cent subject to the costs of transmission. For money—or rather the desires of men who possess or can command it—inevitably seeks and finds the place or business in which it can be most remuneratively employed. Hence in these circumstances, as just explained, persons in London create bills upon their correspondents in Paris for the express purpose of selling them in London for cash, when the amount is remitted to Paris, and earns, by loans and discounts, the more favourable return of 6 per cent. In the same manner merchants in Paris at once forward to England the bills which they hold upon British firms for goods supplied; and their discounted proceeds (at 3 per cent) pass to Paris for this advantageous employment in the French central money market.

We may here point out, by anticipation, that the only mode

of averting this process of depletion is to attempt to equalise the rate of discount prevailing in these two financial centres. We are thus led to that form of international monetary relationship which most gravely concerns the Bank in its conservation of the National Reserve, and which is termed the Foreign Exchanges.

The province of this book would be exceeded—even if the writer possessed the technical knowledge requisite for the task—if an attempt were made to explain the minutiæ of the procedure which the Foreign Exchanges involve. A brief and general exposition, however, is needed before the reader can fully appreciate the influences operating upon the Reserve; the prudence and sagacity entailed upon the Bank as custodian; and the effects which the process indirectly produces upon the prices of securities.

A simple definition of the phrase "Foreign Exchanges" may be furnished. The term is usually explained as a statement of the means by which the mutual indebtedness between nations is cancelled by payment; or, again, as an exposition of the ways in which foreign bills of exchange (for the discharge of debts owing abroad) are created and used; but the reader should adopt the practical sense of "the rates of monetary exchange between different countries"—that is to say, the amount of money in the currency of the country in which a business transaction arises with a foreign country (and for the settlement of which the money is required) which, at the time of settling that transaction, can be exchanged for another amount of money in the currency of the foreign country where the debt is due.

When a merchant in London sells goods to a merchant in Paris, the goods form an export[1] in respect of England, and an import[1] in respect of France. And so *vice versâ*. With regard to the export from London, the English merchant is a creditor of the French merchant; that is to say, the French merchant owes him the price of the goods: similarly, for the export from France, which is an import into England, the French merchant has sold goods to the Englishman, and

[1] **Export: Import:** derived respectively from the Latin *ex*, out of, *in*, into, and *portare*, to carry.

the latter is a debtor to, or owes the cost to, the French exporter. Now expand the illustration to the dimensions of the aggregate trade between the two countries—reciprocal purchases and sales—so that some English merchants owe money to French merchants for commodities which the former have received, while other English traders are creditors of different French merchants for goods which the latter have bought. How is this mutual indebtedness, part one way, part the other, to be settled?—all settlements, it being remembered, though effected through the immediate agency of cheques and bills of exchange, depending ultimately upon the payment and receipt of gold.

As the two countries have different coins the first question obviously to examine is the relative value of the coins in respect of the pure gold which the sovereign and the franc respectively contain, since that number of francs alone is equal to and exchangeable for a number of sovereigns when the number of francs and the number of sovereigns are composed of the same quantity of pure metal. It is found that the pure gold in about 25·22 francs (more exactly 25·2215 or 25 francs and $\frac{111}{500}$ of a franc) is precisely the same in quantity as the pure gold in one sovereign. Hence 25·22 francs can be exchanged for a sovereign without loss to either party to the transaction.

But it would clearly be most inconvenient and cumbrous—involving also the cost of carriage across the Channel, and the premium upon the insurance of the gold to cover the risk of loss through shipwreck—that France as a whole (or an industrial trader in France) should remit gold to pay debts due in England for purchased goods, and, conversely, for a merchant or a body of merchants in England to discharge their debts in France by a similar process. Hence, just as we pay and receive payment of our debts in England between one another by cheques, so this indebtedness between one country and another, resulting from mutual trading, is settled by foreign bills of exchange.

A bill of exchange, passing between merchants trading with each other in England, has been explained as simply an order made by the person who has sold goods upon him who has

bought them to pay a sum of money to the issuer of that order (or the person to whom he may transfer his right) which shall be equivalent to the value of the goods. In a similar way—where the case involves merchants in different countries—the foreign bill of exchange is simply an order that, in consideration of a given amount of the money of one country having been paid in that country, there shall be delivered in another country, at a specified time, and to a named person, a stated sum of money in the currency of the latter country.

Now there is a class of exchange dealers who meet twice a week in the Royal Exchange and buy the bills which English merchants have drawn upon foreign firms for payment of goods exported or sold from England; these merchants thus obtain from the dealers the immediate payment of their debts without waiting until the bills mature; other English merchants who have imported or bought goods from foreign merchants purchase these bills from the dealers (according to the locality on which they are drawn, and the amounts which the merchants owe abroad), which they transmit abroad in settlement of their own debts. Thus, as a simple concrete illustration: An English merchant is owing £100 from a foreign merchant, and another English merchant owes the same sum to the same foreign firm; the bill or order of the former upon the foreign merchant is sold to the dealer, and the commercial transaction between the two firms is closed. That bill is purchased from the dealer by the second English merchant, who forwards it to the foreign merchant; the latter cancels it, and the second transaction is also settled. The process is precisely similar, however numerous be the merchants in different countries, who are debtors and creditors to each other in various transactions. Assume four merchants; and since symbols, when clear enough to call up instantly the concrete objects for which they stand, save needless expenditure of mental energy, let us designate one English merchant EM (by the initials of English merchant), a second English merchant EM^2, a French merchant FM, and another French Merchant FM^2. FM buys goods from EM and has to send him the price of £100; EM^2 purchases different goods from FM^2 and has to remit £100 to him; if money were transmitted

we should have the foolish spectacle of a vessel carrying £100 abroad and another vessel passing it with £100 for England. The simplification effected by the bill of exchange is here prominent: FM^2 draws a bill or an order for the £100 on EM^2, FM buys the bill and sends it to EM, EM presents it for payment on maturity to EM^2, and EM^2 discharges it. In this case one bill has sufficed to complete the entire settlement without the dispatch of a pound or franc. (*See Note C*, p. 122.)

Now, if English merchants have imported or bought merchandise from abroad of a larger total value than that of the goods which have been exported or sold abroad, the aggregate debts for which the English merchants are liable exceed the sums due to them by the foreign firms. The exchange dealers accordingly possess bills drawn upon foreign merchants by English creditors of a *less* total value than the debts due abroad by other English merchants. The latter, accordingly, rather than incur the cost of sending gold in payment, compete for the purchase of the fewer bills upon foreign firms, and as a necessary result of competition the price paid for such bills increases; in other words, more sovereigns are given for a stated sum in francs than, in reversed circumstances, would be demanded. (*See Note D*, p. 122.)

It has been mentioned that on the basis of the quantity of pure gold £1 is worth about 25·22 francs; otherwise expressed, £1 paid in England should provide 25·22 (nearly 25¼) francs in Paris; and as the consequence of this demand for the scanty number of bills on France, £1 may suffice to procure only 25·17 francs instead of the normal and exactly equivalent 25·2215; so that if a debt, in the assumed case, of 1000 francs had to be discharged in Paris the buyer of a bill, as a sum in proportion shows, would be compelled to give—not the sum of £39 13*s*., at the real equality of the coins (25·2215 francs per £1), but—the sum of £39 14*s*. 7*d*., at the preceding price of 25·17 francs per pound. And competition, according to the fewness of the foreign bills, may so advance that it would be as cheap (at about the exchange of £1 for 25·12½ francs, when gold would tend to leave England) to remit gold itself,

notwithstanding the cost of insurance and carriage. The contrary state of trading transactions between the two countries (when £1 will purchase more than even the par value of 25·2215 francs) is here implicitly explained. Thus the condition of the mutual commercial indebtedness between two nations may cause gold to be withdrawn from this country in settlement of the balance of debt, and, as it must be obtained ultimately from the Bank of England, the Reserve tends to become reduced below the limit which prudence and sound business principles would assign as in adequate relation to the extent of liabilities. If this outflow be not checked, merchants will grow alarmed at the diminution of cash resources upon which the validity of their documents of credit depends; general disquietude will pervade all trading operations lest debts should fail to be dischargeable in gold; and if the efflux on the preceding account prove to be continuous and increasing—especially if it concur with the abstraction of gold for the settlement of internal payments, and more particularly if, coincidently, other nations require gold for their local purposes—the mercantile misgiving may develop into a commercial panic.

The possible demand by foreign countries, apart from the fluctuations of trade indebtedness, may be enlarged upon. England is the unrivalled centre of monetary transactions, the supreme exchange at which the commercial and financial engagements of the world converge for settlement. This unique position England owes to numerous and unparalleled circumstances: her insular situation and consequent freedom from the trepidation of possible war which produces the nervous tension of continental nations whose boundaries meet; her free and elastic form of government, her vast commerce, her limitless resources, her intimate trading connections with every region of the earth, the certainty of obtaining gold in the discharge of her obligations, her vigorous and daring methods of enterprise supported by adequate pecuniary power, and, far from least, the established and renowned reputation of her merchants and financial institutions for honourable character, punctual fulfilment of commitments, and unassailable solvency. Hence bills drawn upon England form one

of the favourite modes of investment of foreign banks and financial firms, since upon the permanent value of these documents rests no shade of doubt.

If, then, a period of financial and commercial stress should on any occasion occur in a foreign country—an imminent war or industrial discredit and distress—a source of supply of the gold that may be rendered necessary to fortify commercial houses or secure the retrieval of mercantile confidence is readily provided by the conversion of these bills into metal. The Reserve of the Bank of England is thus the fund whence the world may draw.

But the maintenance of our own national financial soundness depends upon the retention of this fund upon a level proportioned to the range of our own liabilities; and this honourable duty, custom and tradition have confided to the responsibility of the Bank of England. A simple tradition of practice alone; for neither by legislative enactment, nor by formal and official recognition of the trust, has the Bank admitted or accepted the obligation. The performance of this duty thus affords a happy and memorable instance of deferring, not infrequently, the private gains of a corporation to the higher office of a public service.

Dealing with the mode of preserving the Reserve a homely illustration may be cited. If we desire to keep people to a certain place or course we effect our wishes by rendering that place and course more attractive than the inducements which exist elsewhere. In the same way the Bank retains the Reserve by making it more profitable to the holders of gold and to those who can command its possession, to employ their funds in England than to transfer them abroad. This course possesses the threefold merit of preventing gold from leaving the country; attracting back the gold that has already disappeared, and inducing gold which exists in foreign monetary centres. Instead of the cash proceeds of debts due to merchants abroad being remitted thither for use, the Bank is enabled to secure their retention here.

The instrument for this purpose is a rise in the rate of interest—the minimum bank-rate, as it is termed—at which the Bank will make advances and discount bills of exchange.

If, for example, the rate has stood at 3 per cent it may be increased by stages to 7 per cent, and even to a higher level, so that the employment of money in England in the form of loans (since owners of money can thus lend here at, for example, the 7 per cent) becomes substantially more remunerative than would be its similar use in foreign markets; and money consequently is retained and attracted here to secure this advantage.

Until about seventy years ago the policy of the Bank on the occurrence of withdrawals of gold consisted either in letting affairs right themselves, or contracting their grant of loans or extending them. The plan of increasing the rate of discount was not adopted, and, indeed, such a course would not then have been so available or efficient as it proves at present, since the transit of bullion was more expensive and less expeditious, and the amount of floating capital was considerably restricted, so that the attraction of a higher rate of interest was of inferior effect. It is when loanable capital is so large as to involve constant competition for its profitable use, and so capable of safe and ready transfer as to be promptly placed in quarters where that profit is secured, that the offer of a greater remuneration proves substantially efficient.

It is true, of course, that unless the increase in the bank-rate (the "official minimum") be followed by the similar action of other lenders—the banks generally—its operation will fail to an extent in the intended purpose. The banks of the kingdom, with their enormous accumulation of funds, must employ them profitably by offering attractive or low terms to borrowers, and there is a tendency consequently in the market rate for loans to prove irresponsive to the action of the Bank. But in periods of grave urgency, when the Reserve (which signifies the reserves and therefore the solvency of all the banks) is subjected to momentous depletion, the general terms for the use of money are brought into close correspondence with the rate settled by the Bank. Banks at these periods increase the rate of interest upon deposits, which helps, by this higher return, to retain and augment this form of loanable capital; and, as persons at home and abroad who possess

funds to lend, dispatch their capital for investment wherever the greatest remuneration can be procured (the principal being safe), the cash which foreign firms and banks would, under the existence of an inferior rate of interest, withdraw from England for better use elsewhere, is retained, while the attraction of advantageous lending also induces money to be remitted from abroad to secure the benefit. This process is also aided by the world-accepted assurance that in no form is capital more soundly placed than in that of British securities.

Should the Bank, however, find that its protective measure at any stage is not sufficient to compel, in adequate degree, a corresponding upward movement of the general market rate —for action would obviously be inoperative unless all lenders combined—the expedient is adopted of the Bank borrowing money in the market upon the securities it possesses. The amount of external loanable funds is thus reduced and brought under the Bank's own command, and with this restriction of the market supply of capital in proportion to the demand a single rate of discount finally dominates all advances of money, and the power of retaining and attracting gold is established.

A remedy may be largely valueless if its application be deferred until the disease has become fully established, and hence the sagacity and foresight—and the self-control, it should be added—of the Bank of England are exhibited in its vigilant watchfulness over the course of international events—social, political, and commercial—in order that preventive measures may be promptly adopted, and the dislocation of our own trading arrangements (which an onerous rate of interest produces) be diminished as substantially as possible by successive advances of the bank rate rather than abrupt and violent changes.

It has been pointed out that when our merchants have imported more than they have exported (in connection with any country), bills of a less aggregate value are available upon foreign houses, and competition ensues for the purchase of the insufficient stock for the settlement of our foreign indebtedness. The standard equality (or par) being the exchange of £1 for 25·2215 francs, the illustration was furnished of one sovereign purchasing only 25·17 francs. Similarly, in Paris in these

circumstances, with close approximation, 25·17 francs instead of 25·22 will buy a bill for £1; that is to say, the exchange is low, or unfavourable to England. In other words, the purchase-price of bills in England upon Paris (for payment of commercial debts owing in that city—the city which we have employed in the illustration) may become so high, that is, may procure so inferior an amount in francs, that it may ultimately prove to be cheaper, notwithstanding the charges for carriage and insurance, to defray the indebtedness by the transport of gold—with consequent depletion of the Bank of England Reserve. But, when in this condition of the exchanges the bank-rate in England is superior to that in France, banks and merchants in that centre invest (on account of the more advantageous terms for loans to be realised in London) in bills drawn upon England; and this increased competition enhances the price of English bills. Hence, for example, regarding our illustration, 25·27 francs, or more, in France may gradually become the price of £1 (since the value of bills on England has advanced by the foreign operations above mentioned); the exchange will then be favourably turned in connection with England, and the possibility of an export of gold from England be reduced on this account—an exchange of 25·32 francs to £1 bringing gold from Paris. [The eagerness in Paris to secure bills drawn upon English firms, when our bank rate is increased, would probably be mainly directed to bills which were payable on demand or "at sight," so that the proceeds might be received immediately for investment at the prevailing rate. For if a bill maturing in three months' time were bought it could only at once be utilised for investment by discounting, and the high rate of discount would tend to neutralise the pecuniary benefit from the investment of the proceeds. And, in addition, the bank rate might possibly soon be reduced.] Corresponding remarks apply to the exchanges with foreign countries generally.

An exchange is thus termed favourable to England when (citing France again as example) the cost of placing £1 in England (that is, the price in francs of a bill of exchange per each £1 which it expresses) approaches the level at which it would practically be as cheap to dispatch gold from France

(*see Note E*, p. 123); the favourable aspect consisting of the inflow of gold in augmentation of our Reserve, and thus rendering possible the borrowing of money for purposes of trade at a cheaper rate, in consequence of the Bank, through its re-established Reserve, being soon placed in a position to reduce its official terms for discounts.

It is obvious that the precisely adequate proportion of the Cash Reserve to the country's liabilities cannot be mathematically fixed. The average over a term of years appears to be about 43 per cent. Men of business are properly not troubled on large problems with decimal exactitude, and there exists a universal tendency to employ "round" figures. The general teachings of experience afford the only valid guide; and we may apparently regard 50 per cent as a standard which produces full confidence and a sound sense of commercial security.

For completeness of statement it may be noted that the amount of public deposits in the Bank of England diminishes at the beginning of each year in consequence of the payment of the interest upon Consols. Then up to the end of March it gradually increases by the receipt of a large portion of the income tax payments and other taxes. This concentration of funds in the Bank of England, arising from this collection of the national revenue in taxes, reduces obviously the amount of loanable capital which the banks in general possess for advances, and borrowers consequently are required to pay a higher rate of interest for its use. Speculation in Stock Exchange investments thus suffers discouragement, with a resulting tendency to a fall in the values of securities. The "other deposits" regularly increase about the close of June and December, as banks then pay in considerable amounts to the credit of their several accounts with the Bank for the purpose of exhibiting in their balance sheets an adequate proportion of cash in order to strengthen public confidence. And in periods of financial disturbance and alarm, and increasingly so as the area and intensity of that disturbance extend, the amount of "other deposits" receives a substantial accession by reason of the joint stock banks augmenting their credits with the Bank as a provision for possible contingencies.

The reader who ponders and not simply stores will submit

a pertinent question. The convertibility of the Bank of England notes, he will observe, is guaranteed only partially by gold coin and bullion: a considerable portion of their security exists in the shape of a debt and investments. If, then, a crisis occurred of an exceptionally stringent and extensive nature, and the increase of the bank-rate failed sufficiently to arrest the drain of gold, the entire stock of gold might vanish, and yet a considerable liability under notes would remain and require to be discharged. The Government debt would, at such a period, form an idle entry for all practical uses; and the investments of the Bank would be unrealisable in cash, since the assumed condition of affairs would prevent their purchase in the market. The Bank then must become insolvent.

This state of impending disaster has occurred, and the remedy is the anomalous one of suspending (as it is termed) the Bank Act of 1844; in other words, the relief is afforded by the violation of the Act which was intended and expected to prove a permanent and unassailable national safeguard.

It will be remembered that under no circumstances can the Bank increase its issue of notes *against securities* beyond the limit which that Act prescribed; and a suspension means that the Bank is at liberty to disregard this restriction and to increase its circulation of notes to any extent that may be deemed expedient. Suspensions of the Act were allowed by the Government of the day during the crises of 1847, 1857 and 1866; and on each occasion the public apprehension at once subsided as soon as it became clear that notes could always be obtained.

The reader should not forget that an institution which becomes bankrupt may nevertheless be perfectly sound—the cause of disaster being the unwisdom of concentrating its funds too closely in investments which, in a condition of commercial strain, are incapable of being reduced into cash.

The fluctuations of the prices of securities, so far as the Reserve is concerned, will now be perceived. An adequate Reserve implies a low rate of interest for borrowed capital; and a low rate of interest aids in raising the prices of securities in two ways: (1) surpluses that would at other times be

employed in trading or loans seek Stock Exchange investments as yielding a higher return; and (2) more investments are purchased with borrowed money on account of the lowness of the terms on which it can be obtained. If an advance of £500 can be gained from a bank at $2\frac{1}{2}$ per cent, the bank accepting as security a stock (bearing, we will assume, $3\frac{1}{2}$ per cent interest) worth £550 (that is, demanding a margin of 10 per cent), and if the stock be purchasable at par the borrower thus expends the loan of £500 and £50 of his own money, and pledges the investment as security; he thus receives on the stock £19 5*s.* per year, pays his interest of £12 10*s.* and realises a profit of £6 15*s.*, which is at the rate of $13\frac{1}{2}$ per cent per annum upon the £50 which he has himself alone provided.

When, however, the Reserve is diminished appreciably, the bank-rate of interest is increased: prices of securities accordingly become depressed in consequence of three causes: (1) Some investors sell in order to utilise their capital more profitably in trade or loans (either directly, or indirectly by purchasing industrial shares, or placing their money on deposit with banks, whence it is lent); (2) the diversion of savings for the same reason into the channels mentioned, which in other circumstances would have been invested in securities; and (3) the compulsory sale of securities by speculators who had bought them with borrowed money, and who are now compelled by the pressure of the enhanced rate of interest to abandon their transactions.

A few words and phrases which the reader will most frequently meet with in financial statements may be briefly explained. Money is said to be a **drug** (the remote origin of the word is uncertain) when its supply is greater than the demand for loans, discounts and investments in trade or securities, and the rate of interest consequently falls.

When, also, the amount of money available for loans and other purposes exceeds the demand, there is said to be a **glut**[1] of capital.

Rates of interest for loans—or the value of money—are said

[1] From the Latin *glutire*, to swallow, to gulp down (hence glutton); one's fill of something, which finally cloys the appetite; a surfeit.

to be **hard** or **hardening** when the demand for advances increases and the rate of interest accordingly tends to rise. Prices *harden* when they remain steady and show a tendency to increase.

Liquid assets consist of securities which can promptly be converted into cash by ready sale. They resemble metaphorically a liquid in its ease of flow, that is, in their instant passage into money. A bank's liquid assets comprise cash in the bank's till; its balance with the Bank of England; money lent which can be called in immediately or at short notice; and investments such as Consols, securities guaranteed by the British Government, and other investments which are equally quick of realisation.

Cumulative Preference Stocks are those where, if any deficiency occur in the payment of the full rate of interest, which the stock bears, in any half-year, the deficiency must be satisfied in subsequent half-years before any stocks and shares ranking lower in security become entitled to any payment.

The only other agency in the money market which requires notice is the business of Bill[1] Brokers and Discount Houses. A Bill of Exchange, it has been explained, is an order on paper to pay a certain sum of money at a specified date—the drawer of the order being the seller of goods—the person on whom the order is made being their purchaser, and the document being based on valuable consideration in the form of the commodities which the former has delivered and the latter bought.

The great mass of these bills are discounted, not by the banks, but by a specialised class of intermediaries acting between the banks and the merchants who draw and accept the bills. The bill is, perhaps, an order to discharge the debt to the person by whom it has been drawn or to whomever he may convey his rights, on the expiration of two or three months. But the holder requires immediate money for the

[1] **Bill**: from the Low Latin *billa*, a writing—*billa* being a corruption of the classical Latin *bulla*, which meant a knob or boss. Whence in mediæval Latin *bulla* denoted a seal, and particularly the seal appended to a document as attesting its authenticity; then by transference the term was applied to the document itself; a further extension embraced any official or formal writing, though without a seal.

conduct or extension of his business, and hence, instead of waiting to receive the payment when the bill matures or becomes payable, he presents it to a bill-broker for discount. The broker then hands him the amount expressed in the bill, after deducting interest at the prevailing rate for the period which must elapse before the bill falls due.

The necessity of a division of skilled labour in the complicated business of finance has created this specialised class of dealers. A banker cannot afford the time from the administration of his ordinary business to keep himself minutely acquainted with the character and solvency of merchants between whom these documents circulate in the (representative) payment of indebtedness; but the bill-broker makes it his special vocation to watch vigilantly the history of men and firms; the soundness or riskiness of the commercial transactions in which they engage; the changes which occur from time to time in their financial position, and, generally, the extent to which they can be trusted (the standard of credit they possess) in the fulfilment of their obligations. For obviously, the worth or valuelessness of the Bill (or security) depends upon these conditions. They are thus enabled to distinguish sound bills from inferior ones—those, in short, which (from the character and reputation of the drawer and those on whom he draws) represent real transactions (the delivery and existence of goods of equivalent value), or the reverse.

As the broker must be prepared to discount approved bills to practically any amount, he borrows funds from the bankers on the security of bills, or sells to them a portion of his stock of bills. In the last resort, when sufficient advances cannot be obtained from the banks (which perhaps are, at the time, preparing for the payment of their own dividends, or the interest upon Colonial and Corporation Stocks which they manage, and require accordingly to strengthen their balances) he must apply to the Bank of England for resources. His relation accordingly to the variations of prices on the Stock Exchange consists in supplying immediate capital which may partly proceed to the purchase of securities when money is cheap (that is, when the rate of interest is low) and trade

languid, or be diverted from investments, when money is more valuable (through an increased rate of interest), into the channels of a more remunerative trade.

Note A.

It is not intended that this book should assume in any degree a controversial character. An interpolated remark, however, may be usefully made upon the subject of Credit, suggested by a recent article in a financial journal of high reputation. In opposition to the contention that credit rests upon gold, this journal asserts that the regulator of credit is the supply of "credibility"; that credit is founded upon "credibility, trustworthiness, and security." General expressions, however, of this nature do not materially aid our progress. I will assume a particular case. I perform some service or deliver some commodity to a person and accept, in exchange, his cheque. My acceptance is based upon my trust in his character for honour and his means of satisfying the cheque. But upon what kind of means? I do not want goods; if he offer them they may be beyond my course of business, or be quite unneeded, and may therefore waste or entail loss of time and money in disposing of them. I may simply pay the cheque into my bankers' as an asset to be drawn upon for suitable chances of investment. What I thus depend upon is gold: not necessarily its actual possession in notes or sovereigns, but the certainty that the gold which the cheque represents is within the command of the giver, and is transferred by the cheque to my command, so that if I, or any person to whom I may hand the cheque, demand gold, the stock is there, and is sure to be forthcoming in liquidation of the cheque. I require, as my payment, a *power of command* over any commodities I may wish to buy, any services I may want to have rendered, or any investments I may desire to secure; a power of command, in short, over any commodities (to an equivalent amount) *anywhere*: and this universal command alone consists in the form of gold—the commodity accepted in exchange by the whole civilised world. Complicated questions can constantly be enlightened by the separate consideration of one of the constituent parts of which those questions form the representative mass; the ripples of a pool express as fully and precisely the principles of hydrodynamics as the "league-long roller" of an Atlantic sea.

Note B.

A diminution of "other securities," of course, occurs when loans which had been obtained from the Bank are repaid.

Note C.

The appended example presents, at one and the same time, the wonderful utility of bills of exchange in bridging a gulf which would otherwise be impassable, and the eminent service of London as the general centre of international settlements.

Assume that two countries, A and B, possess no commercial intercourse whatever with each other.

1. A exports its native goods to C, and C is accordingly a debtor to A.

2. C exports its own products to B, and becomes, in consequence, a creditor of B.

3. If trade existed direct between A and B, C would draw a bill upon B (B accepting it), and C would then forward the bill to A in settlement of A's claim upon C. A, in its turn, would dispatch the bill to B in payment of any imports it had received from B. The latter, having thus obtained its original bill back, would cancel it, and thus the triple account would be discharged in this ready mode.

4. But this course is impossible, since, by supposition, A and B are not in trading communication.

5. In this difficulty England (E), as the world's metropolis in commercial exchanges, enters upon the scene—E, in its universal transactions, dealing with A, B, and C.

6. E has purchased goods from B, and is thus B's debtor. B draws a bill (or order to pay) upon E for the amount, which E accepts.

7. B transmits this bill to C, and thus cancels its indebtedness to the latter (No. 2 above).

8. The same bill is then passed from C to A, and satisfies A's claim upon C (No. 1 above).

9. Now, A has bought commodities from E, and thus has rendered E its creditor.

10. A, accordingly, dispatches the bill to E in extinction of E's charge. E, who originally accepted the bill, thus receives it back, and destroys it. In this easy and uninterrupted mode, the entire round of indebtedness has been annulled by successive liquidation with the one bill notwithstanding the fact that A and B have no direct relations with each other. It is scarcely necessary to add that the goods imported and exported, and the several debts thus created, are, in this illustration, regarded as being of equal value.

11. The process can be graphically exhibited, and in all complicated problems of exchange a picture-presentation is most serviceable. From E to A draw an arrow, the arrow-head pointing to A; from B to E, an arrow with the head pointing to E; similarly, an arrow from C to B with the head turned towards the latter; and one from A to C with the head towards C. These arrows indicate the route of the goods from feather to head; and the reverse course shows the direction of the respective indebtedness.

Note D.

These foreign bill dealers, after their meetings in the Royal Exchange, publish a list of the rates then settled at which foreign bills can be purchased, termed the "Course of Exchange." In the two columns of this Course are specified the number of foreign coins which £1 will buy in the several countries mentioned; in the first column, the prices relate to Bank-bills, while the prices in the second column apply to Trade-bills.

Owing to the evident distinction of security involved in these two descriptions of bills (or orders to pay ; Bills on bankers or Bills on merchants) the former prices express a less number of foreign coins for £1 than the latter.

NOTE E.

Briefly expressed : the more francs that can be realized in Paris for each £1 paid in England, the more favourable is the exchange to this country, and reversely.

CHAPTER VIII

THE INVESTMENT MARKET; OR, THE STOCK EXCHANGE

THE Stock Exchange is a collection of different markets, or bodies of men who buy and sell the various kinds of securities which are current: in one market Consols form the staple of transactions; another market deals exclusively with railway stocks and shares; and so on. These are all congregated in one building, but the several markets are situated in allotted parts of the place, though each adjoins the other. The advantage of this arrangement is evident: when a broker enters the House (as it is called) to execute a purchase or sale for a client no time is wasted in discovering after search the persons with whom he can deal in the particular security, but he at once proceeds to the separate market in which transactions in that security are made.

The members of the house consist of brokers[1] and jobbers,[2] and to the latter is usually applied the term dealers,[3] which has thus acquired a specialised sense. The jobbers are members who are prepared to buy from or sell to the public

[1] **Broker:** the Old French equivalent of this word was *brocheor*, meaning literally a tapster who retailed wine "from the tap"; and by an extension of application described any retail dealer—one who bought and sold again; a secondhand dealer, or one who bought for another: hence it is employed to denote one who acts as a middleman; on the Stock Exchange the broker is the intermediary between the jobber and the public.

[2] **Jobber:** literally one who does jobs or odd pieces of work; and then applied to a member of the house who deals in stocks and shares on his own account. The word "job" is of obscure origin.

[3] **Dealer:** one who deals; a trader; derived from *deal* (the verb) with the suffix *er* for conversion into a noun substantive. The verb itself is derived from a Teutonic word, to part, to divide.

the stocks which form the commodities of their particular markets: the brokers are members who, acting for the public, sell to or buy from the jobbers. The jobber is thus akin to the merchant who transacts business on his own account, while the broker's function is exclusively that of agency for another.

Dealing with the subject generally, the jobber will not possess a supply of the stock which he agrees to sell, nor wish to retain the supply of the stock which he is prepared to purchase. Like the merchant in material commodities, he does not keep a store of securities on hand: when he sells to the broker he will obtain by purchase from some other jobber or broker the quantity of stock of which he has thus disposed; and his skilled and intimate knowledge, and the seizure of the fitting opportunity, enable him so to fix the price quoted to the inquiring broker that the price he must himself afterwards pay to the other jobber or broker for the requisite supply shall be lower than the price he has quoted, and thus show a difference of profit. When again he purchases from a broker he afterwards arranges to sell the same amount of stock to another jobber or broker, and the price at which he buys is so determined that he may, on his subsequent selling, receive a higher price and thus realise a profit; for prices constantly vary, and at times, almost from moment to moment. Where, then, does the stock finally proceed as the sequence of this passage from hand to hand? Either into the possession of speculators or the public—the general hope and intention being that the outside public shall ultimately become the holders.

It is evident, as concerns the advantageous sales or purchases of the public, that the prices quoted by the jobber can never be exorbitant or detrimental to the ordinary investor, since competition for business by the jobbers, and the concurrent knowledge of the state of the particular market which the broker (protecting the interests of his client) possesses, retain the prices at their legitimate levels—legitimate in the sense of conforming to the prevailing rates and estimates. The varying prices at which sales and purchases of stocks are thus effected constitute at the time or times the "market prices."

The process of business may be briefly described. The

broker receives instructions from his client to buy or sell a certain stock; he applies to a jobber in the market where that stock is dealt in, and desires him to "make" a price. The broker affords no indication whether it is a sale or a purchase which he intends, since, if that knowledge were first communicated, the jobber might name a price higher or lower than the really prevailing rate. This possible action of the jobber would, of course, be restrained within fractional limits, for the broker is also acquainted with the state of the market, and if the price quoted does not appear to be reasonable, he can apply to competing jobbers. The jobber, accordingly, ignorant of the intention of the broker, must quote two prices—one at which he is willing to buy, the other at which he is prepared to sell. [The articles in a shop are marked with one price only, since the shop is simply a place for sales: the business of the jobber is twofold, and hence the necessity of two quotations.] Assume that he "makes" the price of 69–70, as it is expressed: at the former the investor can sell, and at the latter buy. The broker may, however, consider that these prices are too "wide," and as the result of "the higgling and the bargaining of the market" as Adam Smith phrased it (though little of this is necessary on the Exchange), a revised quotation of $69\frac{3}{8}$–$69\frac{5}{8}$ (sometimes expressed as $69\frac{3}{8}$–$\frac{5}{8}$) may be obtained, so that the broker sells for his clients (and the jobber buys) at $69\frac{3}{8}$, or the broker purchases for his client (and the jobber sells) at $69\frac{5}{8}$. The investor, it will be observed, whether he sell or buy, is benefited by the "closer" quotation.

The difference between the two prices quoted by the jobber in any transaction is termed the "turn" (or the "turn of the market") and furnishes the profit which the jobber secures. The quotation for a stock is "wide," that is, there is more than a fractional difference between the buying and the selling price, sometimes a substantial difference, when the dealings in that stock are few or not readily arrangeable; when, that is to say, the stock is not one in which the public frequently invest, or when a feeling of apprehension attaches to the stock, such as will be produced on adverse news respecting the stability or prosperity of the company or body which has issued it, so that buyers are scanty and sellers numerous.

And in the incipient and successive stages of spreading nervousness or panic the buying and selling prices quoted for stocks generally will more and more widely diverge. The jobber in these circumstances seeks to protect himself by the range of his quotation.

Suppose that he names 70–74. Assuming the existence of adverse views and disquieting conditions attaching in the market to the stock in question, let us consider the position and prospects of the jobber were he to reduce his quotation from 70–74 to 71–73. If he purchased at 71 instead of 70 he would obviously stand a heavier chance of sustaining a loss when he endeavoured for the purpose of balancing his account to sell what he had bought at a profit to another jobber or broker; for example, if he could only sell at $70\frac{1}{2}$ he would by having quoted 70 realise a profit of $\frac{1}{2}$ per cent, while if he had increased the price to 71 he would lose $\frac{1}{2}$ per cent. If, again, he sold to the broker at 74 in place of 73 his prospect of a profitable conclusion to the transaction is increased: he possesses a greater number of chances in his favour; for if he can subsequently purchase what he has sold at $73\frac{1}{4}$ only, in the one case (selling at 74) he obtains a profit of $\frac{3}{4}$ per cent, while if he had decreased the selling price to 73 a loss of $\frac{1}{4}$ per cent would be incurred. And, as has already been remarked, the difference between any particular jobber's buying and selling price, however wide, cannot transgress the real current appreciation in the market of the value of the security, since any quotation, if illegitimately divergent, involves the instant redress produced by the competition of other jobbers.

The reader, no doubt, has often been perplexed by the quasi-metaphorical language adopted in the money articles of newspapers, but an instance may now be cited where the phrase is literally accurate. When alarming political or financial news is received from abroad, which acts adversely upon securities, the dealers are stated to "depress" the prices of foreign stocks and of home stocks which are likely to be included within the range of the influence which the news exerts. The statement is precisely correct. The jobbers make the current market price of the securities in which they deal; they fix the prices at which they will buy and sell; and if, for example, in the

case just supposed they had on the preceding day quoted 69–70, it is within their province and power on the day when the news arrives to rearrange, for fresh transactions and for their protection against loss (the chance of which has increased), the price at 68–71 or any other figures—they being the merchants to whom all customers must apply, and their decisions constituting the ruling values.

It is evident that the existence of the jobber, and the fact of his being always ready to name a price for a security, although that security may not then be really in his possession, afford invaluable service to the public in enabling them to arrange and complete bargains upon the Exchange with certainty and promptitude. This assertion of public convenience and advantage may be slightly amplified. Without the jobber (constantly accessible to the broker) one may appreciate the waste of valuable time and the increase of anxiety (though, on account of their vastness in the aggregate, incapable of estimate) which would be entailed upon the community if every buyer and seller of stocks were compelled to institute a search, without even a clue, to discover a seller or buyer. The grave inconvenience would itself create the class of jobbers were they not already existent. The modern practice of converting private businesses into joint stock undertakings would be practically impossible unless jobbers were provided to furnish a market for their bonds and shares.

A similar observation on the ground of utility and important serviceableness obviously applies to every description of investment. Even the occasional use of bargains which are termed "options" (though I trust that no reader will ever venture upon the objectionable practice) may be mentioned in connection with large foreign contracts.

A firm of contractors undertakes to build a railway in some foreign and partially developed State, and the principal contingency to be provided against is default or failure of credit on the part of the State. The contractors accordingly, while on the one hand undertaking the construction, may acquire the option (or right) from dealers on the Stock Exchange to deliver an adequate amount of the Government stock issued by that State at a fixed price and at a specified date in con-

sideration of an immediate payment. Thus if the contract be estimated to cost £100,000, and the stock of that State now stand at 70, the option to sell £100,000 of it at 70 to the dealers may perhaps be purchasable, the delivery to take place when the contract is completed. If the State pay the contractors in full, their protective right to sell the stock need not be exercised: if the State, through an impoverished exchequer or bad faith, discharge only £70,000 of the contract price, the loss involved would be £30,000; but this failure in fulfilment of the State obligation would, in all probability, form part of the State's diminished credit, with a consequent fall in the value of their securities generally: hence the contractors might possibly be able to purchase the £100,000 of the stock at 60 which they had engaged to deliver; sell it to the dealers by exercise of the option at the agreed price of £70,000; and consequently the profit of £10,000 with the portion (£70,000) of the contracted agreement would reduce the ultimate loss from £30,000 to £20,000.

I proceed to explain the meaning of the principal columns of the Official List of Securities quoted on the Exchange. The list is published, under the authority of the Committee of the Stock Exchange, once a day; and before a company or institution issuing stocks and shares can procure a quotation certain conditions and regulations must be fulfilled to the satisfaction of the Committee. The list of each day's transactions comes out on the same day after the House has closed—being printed and issued between 5 p.m. and 5.30 p.m.

The list does not express or imply to the public that the Committee pronounce any judgment upon the solvency or financial worth of the companies whose names appear; their inclusion simply proves that specified conditions for admission have been complied with. To assume that the insertion of a company's issues in the list should involve an opinion upon its stability would be to suppose a function which would not simply be utterly impracticable, but also entirely valueless. It would, at the best, be merely the judgment of a few men who might not be qualified to decide; and, however stable an institution might be on admission, it is clear that in the lapse of time virtual bankruptcy might succeed to the highest financial

soundness. Besides, the Stock Exchange is an instrument for ensuring the facility and honourable conduct of bargains: it is in no sense a court of judgment upon credit.[1]

The value of an authorised list of this kind cannot well be over-estimated in the interests of the public, for the prices there quoted enable an investor to compare the price at which he has recently bought or sold, and thus within reasonable limits (since prices are always in process of variation) perceive that he has obtained the current market value. He can also at once himself discover—without the delay and precariousness of vagrant inquiries, which may for various reasons be delusive or misleading—the price he is likely to realise or be required to pay.

Without describing each column in the list we note that one column is headed "Interest due," that is, the dates when the interest upon any particular stock becomes payable in the year. The succeeding column bears the important title "When x d or x in." This, on account of its apparent difficulty and significance to the investor, will be explained at sufficient length at a later stage. The rate of interest, when the rate is a fixed percentage, or the last rate of dividend (when the return is of the nature of dividend and, therefore, sometimes variable) of the security follows; then a column entitled "Quotations," and finally a column of "Business done." The column of "quotations" (being the prices prevailing at the close of business, and hence usually termed "Closing quotations")—expressed, for example, as 70–70½—are not authoritative, that is to say, they are not the statements of the responsible officials of the House. They are simply valuations; the publisher of the list here inserts merely the values of the several stocks and shares at such amounts as the dealers in the different markets advise him to be fair estimates at the close of the day. In respect of securities which constantly or frequently form the subjects of purchase and sale, these quotations may be accepted as trustworthy indications of the actual values; but where dealings are not numerous in any security the closing quotation expresses only an expert's judgment upon

[1] The rule of the Stock Exchange simply states that the committee may order the quotation in the list of any security of "sufficient magnitude and importance."

the price at which business might possibly be done. The extent of the difference expressed in these quotations for any stock indicates, by their closeness or width, to the public the condition of the market—whether transactions have been brisk or less frequent, and whether, accordingly, he can promptly, or after some delay and difficulty, effect a purchase or sale. The quotations may thus, on the whole, be regarded as a genuine guide to the investor.

The final column, "Business done," is a record of the prices at which sales and purchases have actually occurred during the day in question. This record does possess official authority as a presentation of facts. When a broker concludes a bargain for his client, either he or the jobber with whom he has dealt may, if he please, require it to be "marked"—that is to say, he may request that the price should be registered on a board (devoted to this purpose in the House) so that it may appear in the next edition of the official list as evidence to the public concerned of the price which has passed. But it is not customary or obligatory to mark every dealing.[1] Indeed it is obvious—especially in a market where, under excitement or depression, favourable or adverse prospects and judgments, a multitude of transactions have occurred during the day—the space would be entirely inadequate for the record; and it does not appear that any really useful purpose would be served. For the records of prices at which business has been completed follow each other heterogeneously: thus we may perceive a closing quotation of $86\frac{3}{4}$–87, and a record in the following order of business done at $86\frac{3}{4}$, $\frac{7}{8}$, $\frac{3}{4}$, $\frac{11}{16}$, and so on, where it is impossible, except by vague conjecture, to decipher whether any particular price expressed a sale or a purchase; we simply are sure that every sale necessarily implies a purchase; still, the series of prices affords guidance.

Business (purchases and sales) may be effected either for "Money" or for the "Account"; the price, in other words, may be paid or the stock delivered either at once, or at the ensuing Account day fixed periodically by the Committee.[1]

[1] These (normal) practices are affected by the Temporary Regulations under which the House was re-opened during the War, which prescribed that (1) all bargains must be marked, and (2) all dealings must be for cash.

It is a frequent error to confuse the "Settlement" with the "Account" and to describe the Settlement days as Account days. The Settlements consist of appointed dates when transactions require to be settled between buyer and seller, while the Account expresses the period which intervenes between each Settlement, so that each Account begins at one Settlement and terminates with the next; and when an Account has ended bargains are then said to be entered into for the new Account. If the investor pay for the stock he has bought, or deliver the stock he has sold, directly the transaction is arranged, and does not defer payment or delivery (the latter course, however, being almost universally the practice) until the date of the ensuing Settlement, the price is somewhat lower since (in the instance, for example, of a purchase) the buyer retains his money for the interval and obtains the benefit of its interest from the date of purchase to the Settlement, besides possessing the chance of selling meantime at a profit, which the vendor has surrendered. Thus, on February the 28th, 1908, the price of Consols for money was $87\frac{3}{8}$–$87\frac{5}{8}$, but for the Account on April the 1st, $87\frac{5}{8}$–$87\frac{7}{8}$, or, on a purchase, a diminution of price of 5*s.* per cent. The price quoted for any stock is *par excellence* the "Account" price, and any one inquiring the price of a security would receive that price in reply.

The Settlement occurs twice a month—about the middle and end; but the Settlement in Consols, and a few similar securities, is fixed for once a month. The Settlement occupies three days, on the last of which—called the Settling or Pay day (termed in the rules of the Exchange the "Account Day")—all bargains effected during the past Account or fortnight must be completed and closed by payment of the price in the one case, and the delivery of stock in the other. (*See Note A*, p. 148.)

But a person who has engaged in a speculation—who may be a member of the House or one of the public—may not then deem it advantageous or expedient to close the bargain into which he has entered; he may have purchased in the hope that the price of the stock would appreciably rise beyond the price he had agreed to give; the anticipated increase may not

have occurred to an extent sufficient to satisfy his expectation of selling at a substantial profit, and accordingly, instead of concluding the transaction by payment of the purchase money on pay-day, he defers the acceptance of the stock he has bought and postpones completion until the ensuing fortnightly date; that is, he "carries over," or "continues" his bargain to the next account then beginning. In a similar manner, a speculator who has sold stock in the hope of realising a profit by subsequently purchasing it when a decline of price has occurred, discovers that events have not fully justified his anticipation of a fall, and accordingly decides to defer delivery of the stock of which he has disposed until the following Settlement in the expectation that the fall may meantime take place. He therefore "continues" his bargain.

In connection with these continuations, an official of the House, in accordance with certain rules, fixes, on the first day of the Settlement, a "making-up" price (usually determined by the actual mid-day price) as that on which these continued bargains are to be based. As the process would be found somewhat complicated if expressed in general words, I will adopt a concrete illustration; and to prevent the confusion usually resulting from the use of demonstrative pronouns alone I will employ the personal and demonstrative distinction. Thus: I speculatively purchase a stock for the Account ending on June the 26th, at the price of 125; I do not wish to take it up on that day by paying the value. On the "carrying-over" day, accordingly, June the 24th, I (through a broker) sell to B (the jobber, for example, from whom I bought) exactly the same amount of that stock at the "making-up" price (which assume to have been fixed by the official at 124—the value of the stock having meantime fallen), to be delived by me on June the 26th; and *at the same time* I buy from B precisely the same amount of that stock at the 124, to be paid for at the next Account on July the 15th. Hence by the act of sale I undo my first bargain of purchase, and stand in a free position for the further part of the process, which consists in the new contract for the second purchase just mentioned. But as I originally bought at 125 and then sold at 124, I have, on June the 26th, to pay to B the "difference" of 1 per cent upon

the amount of stock. The word "difference" seems here to have acquired a technical sense, though on what ground it is difficult to say; it simply indicates the evident fact that by the intervening fall in price in the market I have made a loss on this part of the transaction. Had, on the contrary, the "making-up" price been 126 (the value of the stock having meantime risen since I originally purchased) I should have received the 1 per cent from B instead of being charged with it; in other words, I should have secured a gain on that transaction. I am thus finally a buyer of the amount of stock which I bought at first, but under a new bargain, the completion of which is deferred for a fortnight, that is, until the following Account. The first bargain for the current Account has been closed; a similar bargain for the next account has begun. If, on the other hand, I be a seller at 125 for the Account terminating on June the 26th, I can postpone the delivery of the stock until the ensuing Account on July the 15th by buying, on June the 24th (through a broker), from B at the price of 124, for settlement at the Account on June the 26th, an identical amount of the stock which I had sold. By reason of the "making-up" price being 124, I thus receive the "difference" of 1 per cent, since the "making-up" price is inferior to that at which I originally sold; and I *simultaneously* sell, for completion on July the 15th, the same amount of the same stock at the same price of 124. Hence my purchase has cancelled my first sale, and I am placed in my original position (except as to price) by the second sale, but with the deferment of the time for settlement of the bargain. Had the "making-up" price been 126 (the value of the stock having increased since my first sale) I should have had to pay the difference of 1 per cent. The original bargain made, in respect of both the speculator for the rise and the fall, is *reversed* for the present Account and is *restored* for the subsequent Account. The "difference" being discharged or received, the continuation or carrying over of the bargain is arranged.

Without entering into more details than are requisite for an intelligent apprehension of the position, it will be noticed that the purchaser who wishes to continue is virtually provided with a loan for purchase of the stock he had contracted to buy,

since the act of B, the jobber, from whom he bought, in waiting for his money until the following account, constitutes in effect a loan of that amount. Similarly, the seller who continues is virtually placed in the position of a vendor with the stock for delivery, since in effect the stock he sold is lent to him for that purpose.

It should be carefully noted that continuations are thus in reality the creation of *new* bargains; the old ones being closed by the processes just described, and fresh ones contracted for the new account—these fresh contracts being based upon the "making-up" prices on which the differences were assessed.

A consideration has obviously to be paid for these rearrangements. In the case of an original buyer the charge is called a Contango,[1] and its amount depends partly upon the current rate of interest, for if the capital generally available for loans be scarce, the higher interest thus demanded will naturally tend to increase the contango; if, further, at the time the particular stock be plentiful the jobber (who sold it) will prefer[2] to deliver to the original buyer rather than consent to a continuation of the bargain and incur the risk of the stock becoming less available and, therefore, dearer: hence, if he agree to continue, he exacts a higher consideration; and the rate is also partly determined by the sound or risky nature of the security. If, on the contrary, the prevailing rate of interest be low and the particular stock be scarce, the original buyer may receive a payment termed a Backwardation,[3] instead

[1] **Contango**: the term is apparently an arbitrary or fortuitous formation from the word "continue." This payment is obviously of the nature of interest upon the money which the buyer has, in effect, borrowed for the fortnight.

[2] For if the stock be now abundant its price will be cheaper, and the jobber, by delivering at once (purchasing for the purpose from another jobber or broker), is more likely to close his account at a profit, since after a time (that is, while the supposed bargain is continued) the stock may become less plentiful (a reduced quantity being offered for sale), and the jobber accordingly, by assenting to the continuation, thereby runs the risk of having to purchase at an enhanced price, and thus receiving a diminished profit, or even incurring a loss.

[3] **Backwardation**: derived from the verb "backward" (now obsolete), to put or keep back, or retard; the latest use, "to backward us," occurred in 1660; the termination *-ation* (as in "retardation") converts it into a noun.

of making one, as the selling jobber may find it more advantageous to defer delivery on account of the present scarcity of the stock. This latter state of things is termed a "Bear account" (to be more fully described hereafter), or a speculation which is founded upon the calculation of a decline in price. [Sometimes, in the case of the carrying over of purchased stock, the broker will himself pay for the stock on behalf of his client, and raise the required funds by depositing it or other securities with a bank.] It is needless to describe the corresponding process where the speculator is a seller. Thus, in bargains for continuation, the speculative buyer (or bull), instead of finding the money to pay for the stock he has purchased, pays interest (contango) upon the amount of such money; while the speculative seller (or bear), instead of finding the stock for delivery which he has sold, receives interest on the value of such stock which, in effect, he borrows for the purpose. When the stock consists of Consols or other Government securities, the deferment or continuation is for a month.

It should be remembered that a continued bargain does not necessarily imply a definite intended speculation. It may occur in some instances that the stock sold is not immediately available; a death may first require to be proved or the bonds (which are contracted to be sold) may have to be received from abroad, where they had been retained by an owner residing out of England.

Where a member cannot fulfil his obligations—if, for instance, he has sold stock which he finds himself unable to deliver, or cannot arrange the continuation of the bargain to the next account—he becomes a defaulter: the official assignee of the Exchange, in that event, fixes the current price of the stock or stocks in which he had dealt (this price being that which existed immediately prior to the Declaration of default), and all members who possess accounts open with the defaulter must close their transactions with him by, as the case may be, buying from or selling to the assignee (acting as the liquidator of the bankrupt's estate) the amounts of stock which the defaulter had respectively contracted to accept or deliver. If the defaulter had sold stock at 95, and the price settled by the

assignee be 93, the purchaser must sell the stock back at the lower figure and become a creditor on the bankrupt estate for the 2 per cent; and similarly, if the defaulter had bought stock and the respective prices were those just stated, the seller must buy back the stock at 93 and transfer the difference to the estate.

I have been induced to describe the preceding modes of procedure, not so much on account of the mechanical or intrinsically valuable knowledge conveyed to the investor, as for the more important purpose of showing that no speculative bargains, however extensive and ruinous, consist simply of book entries—of mere payments or receipts of differences; but that according to the constitution of the Stock Exchange all transactions, whether for genuine investment or based solely upon the calculated or guessed chances of the future, are *real* contracts involving the acceptance and delivery of the ultimate actual stocks and shares purchased and sold. The process of carrying over is in reality, as I have stated, the creation of new and equally real bargains of a contrary nature to that of the bargains which they replace. Hence the practical lesson in connection with the variations of the values of all securities is, that every transaction of this character produces the same effect upon the actual market prices of the stocks and shares in which they occur as that which would result had every speculative bargain of purchase and sale been a genuine investing operation of the outside investor. The object of the speculator may be a mere grasp of profit as soon as it appears, based upon skilful calculation of chances or upon simple guesswork; no intention may be his to secure a source from which a permanent income may be derived; but since the entire course of the speculation, far from being the mere receipt or discharge of "differences" of value, is founded upon actual transactions, the result upon prices generally is definite and real.

Thus the significant knowledge for the public to recognise—since it will prove of service when fluctuations of prices originate in speculative causes—is the fact that no depreciation, especially of any permanent duration, in the intrinsic worth of the securities which they hold, has been produced. Although it is clear and certain that purely speculative transactions as really

affect (raising or depressing) market values as do genuine investing bargains, yet their effect is transient; the result upon general prices produced by genuine investments is stable and permanent, while the influence of speculative dealings, though as real for the time being, is fleeting and vanishes.

We may justly deplore the existence of any excessive and demoralising speculation, which in an extreme form virtually merges into gambling—but the reader will perceive the impossibility, by the creation of rules, of prevention. When a bargain is attempted, who can explore the mind of the bargainer and determine whether the proposed transaction is genuine investing or trusting to chance? No external regulation can ever fit the possibilities of the case; the only standard must be an internal one of entering into no bargain, speculative or otherwise, which the operator feels he may not be able, under all reasonable conditions, honourably and minutely to fulfil. And even could it be decided at the outset that a suggested bargain were purely speculative, who can accurately draw the dividing line between a reprehensible gamble and that form of speculation which will hereafter be shown to be legitimate and beneficial to the public? The statement is startling, but it has been estimated by competent judges that only about 5 per cent of the entire transactions upon the Stock Exchange consist of genuine investment bargains.

It may further be noted that the process of continuing or carrying over a bargain, in addition to its manifest practical serviceableness at times, quite independent of any professed speculative element, is a reasonable course. The grant of a fortnight only—the account period—for determining a person's solvency (however valuable it may be as a test) might, under conceivable circumstances, prove most unjustly disastrous to a member of the highest character and of sound financial standing were there not the safeguard of this power of "continuing." It is quite possible that a stable and useful position might, in consequence of some sudden and unexpected lock-up of funds, be placed in serious peril, if not irretrievably ruined, were not the possibility of retrieval, by the aid of extended time, provided through the machinery of temporarily postponing completion.

The operations of the Bear[1] and the Bull[2] have been described in the preceding statements. They may now be briefly pictured and their relations with the ordinary investor explained.

The popular definition of a Bull and a Bear operator is that the former purchases what he does not require, while the latter sells what he does not possess. This, however, is far from that exclusive form of definition at which all explanations should aim. For the jobber also, when he "makes" a price, is willing to buy what he does not intend to retain, or to sell what does not then rest in his possession. Rather is the distinction between them this: The buyer (or Bull) estimates on reasons valid to himself that the value of a particular stock is likely to rise, and desires, when that event occurs, to be in a position to avail himself of the chance of selling; but in order to gain this position he must obviously first purchase—the expected profit consisting of the difference between the comparatively low price at which he buys and the higher price attained when he sells what he had bought. The seller (or Bear) pursues the opposite course: he surmises that the price of a specified stock will probably fall: if he can sell now at a certain price and his anticipation of a decline should be realised, he can then, by purchasing the stock at the reduced value secure the profit between the price at which he originally sold and the diminished price at which he can now buy, and thus complete his bargain by a successful delivery. Hence, in order to occupy the position of an advantageous purchaser when the price declines, he effects a present

[1] **Bear.**—The word was applied in its present sense in the early part of the eighteenth century, and was in common use at the time of the South Sea Bubble. At that date the phrase "bearskin jobber" was applied to dealers now called bears, and it is thus probable that the original expression was "sell the bearskin," originating in the ancient proverb of disposing of the bear's skin before the bear itself had been captured. Imagination must invent the connection.

[2] **Bull.**—This term was probably derived from a verb-stem, *bullen*, found in some German dialects, which means "to roar"; or possibly, it has been held by a recognised authority, that the term was suggested by the word "bear," though this attempted solution demands, I think, a somewhat daring exercise of imagination to perceive any conclusive appropriateness or naturalness of contrast.

speculative sale. These calculations of a rise or fall in value may be founded upon well-trained judgment, and a comparison of the present condition of affairs with past conditions of an analogous character, with the reasonable inference that—excluding the unexpected and unprovided—the results which followed the former conditions will equally succeed the similar condition now existent. But "there's the rub"—the unexpected! and thus the speculation in future chances may range in graduation, as I have stated, from a skilful estimate to brainless guessing.

My personal experience of able men, in all departments of activity, who have disastrously failed, has shown that, far beyond the range of ordinary men, they possessed the faculty of perceiving most of the elements of a subject with marvellous vividness and lucidity of perception, but gained the habit (through happy hits) of mistaking this piercing vision of the parts, however numerous, for a rounded apprehension of the whole. And perhaps my use here of the word "disastrous" rather embodies the poignant contrast between surpassing capacity and its unanticipated fall.

Like the bull, the ordinary investor is in a degree a speculator in future chances; he would never purchase unless he hoped, and possessed some ground for hope (for no one should invest without the guide of knowledge and the exercise of judgment), that his securities would on the whole increase in value, or at all events exhibit no retrogression: but the essential distinction between the two resides in the fact that the speculative purchaser buys simply and deliberately in order to sell, while the investor purchases for the purpose of retention and the possession of a stable source of revenue. The speculative purchaser, in short, buys in order to make as much profit and as speedily as possible out of an increased *capital-value*, without thinking of the income: the genuine investor purchases in order to gain the permanent and remunerative *income* which the capital yields.

It seems an error, therefore, to suppose that prices advance under the compulsion of bulls, and recede under the compelling power of bears; rather is it that a survey of the state and prospects of a particular market, gathered from a multitude

of signs, appears to show clearly to observant minds that an advance or decline of price may be reasonably expected, and their operations, consequently, are based upon the probability of the realisation of these views. Hence the mode in which the prices of securities, in which the investor is interested, are affected by such operations is this: there are two forces (personating, for a moment, the desires of men by forces) of an opposite character always ready to be liberated into action upon the market; the one is vigilantly watching for a propitious time to sell, the other, with equal eagerness, is waiting an opportunity to buy. When prices rise (for any reason or cause), the former force comes into operation in the form of sales, and thus tends to depress or retard values; when prices recede (for any reason or cause), the second latent force becomes actual by purchases, and thus aids in maintaining prices or checking a deeper fall. And the resultant effect upon market values will depend upon the comparative extent and intensity of these forces—the volume of the transactions in these two directions.

I have frequently employed the phrase, "the intrinsic value of a security," irrespective of its varying changes. The phrase is valid. Where we possess reasonable grounds for judging—from character and financial resources—that the issuer (whatever it may be) of a bond or share is stable and prosperous, and likely, so far as human foresight can gauge, to continue in that state—so that the principal may be counted safe and the interest sure—the security in question may be rightly described as embodying intrinsic worth, and to be affected only by those consequences and vicissitudes which attend alike, in graduated degree, the soundest creations of man. (*See Note B*, p. 148.)

In the course of variations in prices an elementary fact—so true as to have degenerated generally into a barren truism—is constantly forgotten: the fact that a purchase necessarily implies a sale, and a sale a purchase. I am in no degree defending speculation as a practice and business: but I must judicially weigh the facts (as I shall more fully show in a subsequent chapter) which the course presents. I here refer to a proposition in illustration merely of hazy modes

of thought. No investor is gratified to perceive his securities decline in value, and suggestions are not infrequently made that speculations for the "fall," or bear operations can be prohibited. Apart from the ridiculous impracticability of such a suggestion, the obvious statement which I have submitted fails to be remembered. If the prices fall by these sales, the careful investor buys and is thus benefited; and the existing investor is rendered hopeful of a sure recovery through the influence of the succeeding purchases involved in that process. Through the operation of the feelings which form the motive power of investing, the tendency is always to a condition of equilibrium or a level state of values; and perturbations at one time in one direction are invariably, where the security is intrinsically sound, rectified at another time in the restoration of the stable position.

Connected with these operations are various associations and acts whose object is, by systematic and organised procedure, to depress or elevate prices. A Syndicate [1] is usually a body of speculators who make purchases or sales in combination in order to attach an apparent activity or adverse aspect to the values of particular stocks as an inducement to the unwary public—who imagine that the change of price is genuine—to buy or sell according to the direction where the syndicate's expected profit lies. If the syndicate, for example, promote a rise by fictitious dealings, and the public respond by purchases at the increasing price, the syndicate sells at the profit thus created. These evil combinations are customarily attended by various devices and manœuvres adapted to promote the designs of the operators. Rumours, for example, are circulated respecting the security—extolling or depreciating it as the case may be; pointing out promising prospects or the indications of vanishing prosperity: in short, whatever statements are likely to impress a credulous public with hope or apprehension. For the ordinary investor, generally speak-

[1] **Syndicate**: in the appropriation of this word to a class of financial transactions we seem to perceive a grim irony of use. The term is derived from syndic, which itself represents the Greek *σύνδικος* (from *συν*, with, and *δίκη*, justice) as denoting one who assisted in a Court of Justice; a subsequent meaning was that of advocating one's own cause. Comment may be safely omitted.

ing, is too frequently a vacillating and timid person, readily sensitive, where money is concerned, to sanguine or doleful feelings, without inquiring into causes; and upon him falls finally, as a rule, the burden of the losses which to the syndicate mean gains.

These concerted manœuvres, baseless rumours, fictitious dealings, are termed Rigs;[1] and an incident in the working of rigs consists of the Corner.[2] By means of these connected processes a combination of speculators may virtually (not virtuously) obtain possession of the whole of a particular class of stock—assuming, in the extreme case, that the total amount of that stock is comparatively limited and cannot be increased—and thus secure the control of its market. For those (external to the syndicate) who have sold the stock—probably in the expectation of a further fall, and accordingly the acquisition of a profit—thus find it impossible to procure a supply for delivery: they are then compelled, for the avoidance of bankruptcy, to purchase at any price which the syndicate may demand. In this hopeless condition the victims are said to be "cornered" or a "bear corner" has been created.

It is simply just to add that the reader must not attach this opprobrious meaning to all syndicates: a syndicate may obviously be entirely devoid of all nefarious practices and fictitious inventions, and may constitute a legitimate and often useful combination.

These instances have been cited mainly for the enforcement, from the history of actual occurrences, of the salutary lesson that the investor should not be tempted to sustain a loss by succumbing to the infection of fears which operations of this nature suggest, but do not in reality involve. An inquiry into causes is, as in medicine, the best corrective to the treatment of disease. It is clear that no syndicate can

[1] **Rig**: perhaps allied to a Scandinavian word, to cover, then applied to decoration with personal adornments; and here, in an ironic sense, the wrapping round of the fictitious procedure of a syndicate with the attractive semblance of reality.

[2] **Corner**: derived from the Latin *cornu*, a horn, and applied to the resemblance to a horn presented by the meeting-place of converging sides or edges in space.

exert a permanent influence upon prices: their effects appear and vanish on the recurrent tides of human craving for the variety and excitement of speculation, animated by the desire for wealth: these combinations essentially contain within themselves the elements of their own disintegration and extinction.

Before closing it is worth while to attend more particularly to the real nature of the process involved in the variation of prices.

For brevity of exposition I select the case of sales only by the public, since corresponding remarks apply to purchases.

Although the operation of supply and demand may be appreciated, the mere statement that many sales produce a fall in values, and numerous purchases a rise, is often felt to be too vague, and a closer explanation of general application may be ventured.

The jobber, it has been seen, fixes the price at which he will purchase from the public through the intervention of the broker. He well knows his business in determining the amount of his quotation, and nothing further need be said upon that point. He, as he has been termed, is the merchant and (restrained in the price he makes by the competition of other jobbers in the same description of security) the value at which he will buy from the selling public determines and constitutes the price in the market for the time being. This is the essential point to bear in mind.

The broker must approach the jobber with an impassive face and demeanour so that no indication may be afforded to the latter that a sale to him—thus biasing his quotation—is intended. But in periods of apprehension which influence holders of any security to sell, the jobber can divine that nearly every broker who applies for a price is a seller, that is, he discovers that he is only asked to buy and thus increase his stock of the security with the natural difficulty and cost of its subsequent disposal. He accordingly lowers the price at which he will purchase, and, moreover, gradually or promptly places a wider interval between his buying and selling price. For his own protection against loss he must balance his transactions: if he buy largely he must be able to sell largely in order to clear his book, and to sell at a price superior to that at which

he purchased, or a loss may ensue. But the more extensive be his purchases the more difficult he finds a sale: an ordinary trader may accumulate by constant purchases so large a store of commodities that his supply is in excess of the demand: he cannot dispose of the whole of them, and the remainder is left on his hands, involving him in growing loss.

The jobber when he buys must effect corresponding sales with other jobbers (or brokers); and for observation of the result it will be clearer and more convenient to assume that holders of a specific security have, at a given time, become filled with doubt respecting its soundness and hence seek its abandonment. [The process simply is widened, but in the same form, when the prospect of war, for example, or of any other important influence is existent.]

A jobber to whom a broker applies discerns (or speedily will discern) that a sale to him is the object required; but, at such a time of incessant sales as that which is here supposed, all other jobbers in the same market will be approached with the like intention, so that their separate purchases would store them all with an increasing supply of the same stock. Now each jobber, for the purpose of settling and balancing his account in the stock, must apply to other jobbers to buy in turn from him what he himself has bought, but other jobbers already possess an excessive supply of the stock, and, instead of buying more, desire obviously to sell what they possess for the same purpose of balancing their accounts. And, in the troubled condition of the market here assumed, it would be futile to attempt to deal with a broker, since the latter's object would also be that of selling for his client.

Thus each jobber is unable to clear off what he has bought except probably at a price considerably lower than that which he gave; or perhaps he may discover it to be quite impossible to sell at all. To avoid this loss and possible catastrophe he gradually reduces the price at which he will purchase (and at which the public can sell), and thus gains for himself an improved chance of transferring his purchases to others by sale. The successive reduction of the jobber's buying (the public's selling) price is thus a decision to restrict his supply for the reasons assigned. If the public, notwithstanding the

lowered price, persist in selling, the jobber still further diminishes his bid; and finally may refuse altogether to purchase more by objecting to make a price at all. In this manner a sale by the public may become impracticable; and the public then must either retain their remaining stock and endure whatever extent of loss may result, or they may give it away to any one who is willing as a speculation to hazard an adverse issue, or (where the investment consists of shares to which a liability attaches, or shares in a Company of unlimited liability) the holders may even be compelled to offer a sum of money to a transferee to relieve them of the obligation of a possible (or probable) call. The reader will thus observe the real meaning of a depressed price. The principle of supply and demand evidently applies and determines the result. And throughout the consideration of the subject it is to be noted, I repeat, that the price, which is settled exclusively by the judgment and decision of the jobbers in their own legitimate interests and regulated by competition, constitutes the price in the market by which the transactions of the public are governed.

The reader will meet with peculiar expressions when reading the articles in the newspapers, and it will be convenient, accordingly, to explain those which most commonly occur.

A Bond usually expresses the obligation of which it forms the evidence, as £100; and this amount, or the "face" or "nominal" value, as it sometimes is named, is *par*.[1] If a purchaser give £100 for the £100 stated in the bond, he is said to purchase, and the security to stand, at par. Upon a share of £10 the whole of the £10 have been paid up in cash, or perhaps £9 have been called up and there remains a liability of £1, which the holder may at some time be required to discharge to the company which issued it, or lose his interest in the undertaking. In the former case, if the investor purchase a share by giving £10, and in the latter if he buy it for £9, his purchase has been effected at par.

The security or share may stand at a *premium*.[2]

[1] Latin *par*, or equal.

[2] **Premium**: Latin *præ*, before, and *emere*, to take; what one takes first or for oneself; hence profit derived from booty; then generally advantage or profit. The seller has obtained a benefit beyond the nominal amount of the bond or share.

If the bond be bought for £101, its price is at a premium of 1 per cent; the purchaser exchanges £101 for the right to receive £100 only when the bond is redeemed [1] or paid off. So for the share: if he purchase it at something in excess of the amount which is actually paid up upon it, the transaction has been completed at a premium.

The security or share may stand at a discount.

If the price of the bond for £100 be £95 it is said to stand at a *discount* [2] of 5 per cent, that is, 5 per cent below its expressed and redeemable amount. For the payment of £95 the buyer secures the right to £100 on redemption.

The silly expression "gilt-edged" is derived from the practice of gilding the leaves or edges of paper and books and thus rendering them attractive and not readily retaining dust: hence applied to securities of the soundest description, such as Government Stocks and the Debenture Stocks of the leading railways.

The word *Boom* [3] has been imported from the United States and indicates a state of numerous transactions with an appreciably augmented price.

Of the opposite character is the term *Slump*,[4] which signifies a sudden, heavy fall in prices either of one stock or many stocks, or the whole of them.

The *middle price* of a security is the value midway between the quotation: if the quotation be 67 to 69, the middle price is 68.

Prices, *harden* when they tend to advance upward: they are *easier* when a somewhat lower quotation can be obtained than existed before.

A *margin* [5] is the excess of the value of a security, accepted

[1] **Redeemed**: Latin *re*, back, and *emere*, to buy; the company, corporation or government buys back the debt it owes by paying it off.

[2] Old French *des* (equal to the Latin *dis*), apart, away, and *compter*, to count, reckon: to count away from, to make a deduction.

[3] **Boom** means to *buzz*, from the Middle English *bommen*, to hum, and aptly applies to the excited noises in the House which accompany a prospering market.

[4] **Slump**: perhaps confusedly connected with "slip" (in the Anglo-Saxon form), to sink or fall suddenly into water or mud: the word is onomatopœic in its origin, or an imitation of the physical sound.

[5] **Margin**, from the Latin *margo*, a brink or border: like the path by the side of a stream, which separates the stream from the walker.

as a pledge, beyond the loan which has been granted. Thus if a loan of £100 be made, and a security worth £110 is mortgaged against it, the difference of £10 is the margin required by the lender as a protection against the value of the security descending below the amount of the advance.

The official list of the Stock Exchange contains the record of some of the prices at which bargains have been completed. Brokers issue lists of their own to their clients, with similar information; and a third mode of imparting information about prices from the Exchange, in a form which is much fuller and more expeditious than the two former methods, is that of the medium of the tape machine of the Exchange Telegraph. As each transaction is effected within the House the price is indicated on outwinding slips of paper tape. (*See Note C*, p. 149.)

NOTE A.

The first and second of these days are respectively named, in the Stock Exchange rules, "Contango Day," and "Ticket Day," though they are customarily described as Contango or Making-up Day, and Ticket or Name Day. Upon the first day, those who desire to postpone the settlement of bargains arrange to continue or carry them over to the succeeding Account. The second day derives its name from the fact that, where a transaction is intended to be at once completed (by accepting delivery of securities and making payment) a ticket is passed from the purchasing broker (on behalf of his client) to the jobber from whom the stocks or shares have been bought, on which particulars are recorded of the description and amount of the security purchased, the price agreed upon, the name of the member who issues the ticket and who will effect the payment, the name of the member to whom the ticket is passed or handed; and, where the security is one which requires a transfer by Deed, the name of the buying client in which the transfer is to be executed. The ticket is thus a demand for due delivery of the securities which have been bought.

NOTE B.

Although I adhere to this phrase, I am conscious of a certain departure from customary usage. I am here considering a security which is purchased as a permanent source of fixed income. I thus employ the expression in a manner analogous to the economic term "value in use," which itself may be thus defined. In a community, let us assume that all the members, except one, are gifted with excellent sight; one member alone has defective vision, but happens to possess a pair of spectacles; the "value in exchange" of the spectacles is zero, since the remaining members find no service for them, and do not, therefore, desire their acquisition; but their "value in use" to the owner is virtually immeasurable.

Note C.

The reader will sometimes find "*Street*" transactions and prices mentioned. This expression refers to dealings in stocks and shares which are arranged in Throgmorton Street (into which the main entrance of the Stock Exchange opens) after the hour when the Exchange itself is daily closed.

Scrip stocks or shares are securities payable to bearer, and passing by simple delivery from person to person.

CHAPTER IX

THE SO-CALLED SYMPATHY OF MARKETS

When one kind of stock declines or advances in value, other stocks frequently show a similar tendency without any apparent cause; the investor becomes perplexed and fancies that some extrinsic and inexplicable influence is in action which cannot be resolved into the equation of supply and demand. The stocks which show the subsequent movement are popularly said to change in sympathy with the variations exhibited by the first stock.

Sympathy [1] is applied exclusively to conscious life, and is the tendency (one might almost term it the spontaneous instinct or connate quality) of placing ourselves in the mental position of others, and thus experiencing in this dramatic mode the feelings which they outwardly manifest. An additional tendency exists universally in the human mind—that of acting out, of giving external expression or effect to, any feeling of which at the time it may be vividly conscious.

The desire of newspaper writers to assume what they imagine to be a graphic and picturesque style of composition is a constant source of bewilderment to the simple reader of the money article. The headings prefixed to the statements relating to the different kinds of investments, and the movements of their values, are frequently of a grotesque description; and the plain observer, forgetting for the moment the exaggerated uses of metaphor, might almost fancy that securities were separate entities endowed with volition and spontaneous activity in their changes. A stock is said to "droop by its own weight";

[1] **Sympathy**: from the Greek *σύν*, with, in company with, and *πάθος*, violent feeling; like feeling, fellow-feeling.

one security, we are informed, "displayed sympathy" with another, and accompanied its fall or rise with a correspondingly friendly change; shares become "buoyant" or "depressed" as though they were affected by emotions. It is unfortunate that money articles for the guidance of the public are not expressed in sober and rational prose. But this is consonant with an age of exaggeration and artificialness.

Let us interpret these metaphors into realities. A spirit of hopefulness of prospect at one time affects the speculative dealer or the public investor in connection with some particular stock or class of stocks—a sunny morning, cheerful news of trade, a reduction of the bank-rate with an easier command of capital, may be the determining cause upon the mind—under this influence purchases of stocks are made which show a chance of improvement, and with this additional demand their price ascends. The contagiousness of feeling is notorious, especially when it is displayed by a mass of persons. Other speculators and investors, seeing the prices of this section of investments rise, grow hopeful, by infection, that other investments in which they are more particularly interested will also improve by frequent purchases—especially where an affinity exists between the industries they represent, such as coal and iron shares: hence extended buyings in different classes of securities occur, with a consequent increase in value. The movement in the one direction may thus permeate practically the various markets, and the result may be due almost exclusively to the propagation, by the force of sympathy, of sanguine feelings from investor to investor. These feelings concretely express themselves in prices. In the gradual creation of a commercial inflation and collapse [1] it is found that when one trade prospers, or appears to prosper, others participate in the upward movement.

It can readily be seen that if increased profits are realised in any particular trade there is more money to spend in the products of other trades, which thus receive an impetus; but

[1] **Collapse**: Latin *col* (*con*), together, and *labi* (*lapsus*), to fall; to fall together, like the sides of a hollow body, by external pressure or the withdrawal of the contents. In a commercial collapse we perceive the twofold operation of the withdrawal of reality and the pressure of fear.

the main factor is a diffused feeling of hopefulness engendered in the latter traders by the sight of the prosperity of the trade or trades which first set the start, and which may genuinely possess the elements of success which the others never actually contain.

It is obvious that some industries are so closely allied in the nature of their work that a rise of value in one necessarily involves a corresponding advance in the other; thus, if the iron industry be stimulated by demands for shipbuilding the coal trade will benefit from the employment of coal in iron manufactures. These trades are united by the bond of co-operation to a common end, so that influences which affect the one will include the other within their scope. This sequence cannot be termed sympathy; it consists simply of effects produced in two industries by a common cause.

It is said that if the price of wheat rises, potatoes and other alternative (or substitutive) foods concurrently and gradually rise in sympathy; the prose translation of this statement merely is that frugal housekeepers would not continue buying wheat flour for 10*d.* when they can obtain a good alternative food in the form of potatoes or rice at 7*d.* Wheat, therefore, is either kept down in price or the substituted articles ascend to its level. This effect is not an example of sympathy; it is the feeling of economy enforced by the rise of an article in common use, and the search for cheaper substitutes.

When securities fall or rise in value generally, we do discover the operation of sympathy, in its proper sense, as a conscious state of mind—the fellow-feeling existing and acting between the dealers (including the public) in these investments. Some cause or event, real or imaginary, or, if imaginary, converted for the time under stress of excited and unreasoning feeling into the power of reality so far as action is concerned—affects the minds of investors with the fear that a particular security is tending to become unsound or likely to prove unprofitable; sales in consequence grow numerous and the price keeps falling; the influence of the emotion of sympathy spreads to the minds of the holders of other stocks (although these stocks may not be related, in any special connection, to those which first fell, and have not been subject to the cause or causes which pro-

duced that fall), and they, in turn, become apprehensive that a similar fate is imminent for their own holdings; extended sales ensue under the power of a fear that may be entirely groundless, and the collapse of values is thus induced from market to market, and a panic occurs; for a panic[1] is simply an outbreak of the emotion of terror affecting a multitude of persons in common, and rendered more perilous by this wider area for the action and reaction of sympathy.

The difficult but imperative attitude to be maintained—if possible—in this period of clamorous fear is clearness and steadiness of judgment; sound investments will inevitably return to stable equilibrium; and the reward is to the investor who can retain feeling within its boundary when the intellect is threatened with submergence. The time when these unguided feelings are the sole controllers of prices is the precise moment when judgment should step in to buy.

The prices of securities are sometimes stated to move in sympathy with the bank rate. Here again the metaphor may confuse the investor until it is transmuted into its literal form. When the bank rate is low, or money may be borrowed and bills of exchange converted into money on easy terms—purchases of securities tend to increase in number and volume (with a consequent advance of their price from competition) from the twofold cause of loans being obtainable at a cheap rate with which to buy securities yielding a higher return, and capitalists securing a more profitable income from investments on the exchange than from deposits with banks or from the employment of their funds in business generally on the lower prevailing terms. The opposite effect is produced when the rate for loans charged by the bank and the market generally exhibits a rise.

[1] **Panic**: the term implies a sudden or foundationless or unreasoning fear, such as that caused by sounds heard in lonely places at night and supposed to be inspired by the mysterious and invisible goat-god Pan. Πανικός, belonging, or sacred, to Pan.

CHAPTER X

THE CAUSES OF THE VARIATIONS IN THE PRICES OF SECURITIES

No more efficient service can be rendered to the investor than that of aiding him to a familiar acquaintance with the conditions which produce the changes in the prices of securities. Through the recognition of the uniformity and calculable nature of causes, with the implied absence of arbitrary and therefore unpredictable elements, the investor, under adverse stress, can rest in assured confidence.

The knowledge of causes (or rather of uniformities of action), is the basis of all reasonable and decisive judgment and acts in every department of inquiry and work. If in natural science we were limited to an apprehension only of the objects which affect our senses we should be able, it is true, to classify them according to the likenesses and differences by which they are connected and separated, but this result would be sterile for our practical needs; we only reach a position of serviceable power when we discover the uniform modes in which (through the operation of the forces which objects possess and which their observed activities embody) they act upon and modify each other—advancing as we do, from the *kind* of effect thus produced (or qualitative knowledge) to the *amount* of this effect (or quantitative knowledge) which composes science.

Bearing upon every section of human practice, no more illuminative aphorism—unsurpassed in the comprehensiveness of its generalisation of experience, and its predictive insight—was ever uttered than the great proposition, "The truth shall make you free." The history of man—the record of his gradual redemption from slavish and despairing fear, social and scientific—furnishes but an impressive series of illustrations of the

spacious wisdom of this statement. The uniformity of action disclosed in Nature reigns also in the sequences of will and act. Specified motives to volition or impulses to action are simply feelings, and under similar circumstances and conditions, the same feelings and views of things with their external expression perpetually recur in constancy of iteration. And upon this persistent relationship between given surroundings and the relevant feelings which they prompt, we base our social conduct. Knowing the manner in which any man is affected under stated conditions, we concurrently know that the repetition of those conditions will be accompanied by the recurrence of that kind of feeling and expression; and hence, in our actions which involve as data the conduct, congruent or antagonistic, of others, we confidently proceed on the basis of those relations which have already been observed.

Knowledge of the past thus carries predictive power in the future. The practical lesson for the investor is this: knowing how the prices of securities vary under specified external conditions (such as a war, or vigorous trade, or paralysed industry) he perceives the course to pursue—whether to buy or sell—for these changes are simply the outward embodiment of feelings relating to gain or the avoidance of loss. And these feelings, as I have stated, are competent of recognition and approximate measurement in proportion to the kind and intensity of the external events which incite them; their uniformity of exercise enables us to view the future, with reasonable assurance, as though that future were existent now. I proceed, in the following chapter, to describe some of the prominent causes which exalt or depress the feelings of man, and which find their expression in the form of an advance or decline of values.

CHAPTER XI

THE EFFECT OF WAR UPON THE PRICES OF SECURITIES

THE effect of war upon the values of investment will obviously depend upon its range—whether it be limited to a country and any of its dependencies (although in the case of India complications with other Powers might probably occur to expand the effect), or whether it be a conflict between independent nations. In the latter case, especially so far as general commerce is concerned, the position is intensified by the apprehension respecting the future, since all bargains and enterprises are necessarily founded on the presumption that the future is not likely to prove divergent from the past beyond the range of reasonable limits. No interchange of business would be practicable unless some valid workable assurance were feasible on this continuity of experience. Existent and definite burdens upon trade produce a markedly inferior hindrance to industrial effort than does uncertainty concerning the probable course of future events. And so intimately allied are the various markets of the world for money and commerce that the disturbance of one inevitably involves, and almost instantly, the dislocation of the rest, when the chain which binds the whole into a unity of interests is sundered at any link.

The primary effect resulting from a declaration of war (omitting for the moment the disruption of international commercial exchanges of goods and the apprehension affecting credit) is that of unproductive expenditure—expenditure which does not by economic use result in the creation of additional wealth for wider enterprises and extending productiveness. Even should one warring nation wrest in conquest a province (with the benefit of its local industries) from another nation, the gain is simply the transfer of a source of wealth or resources,

and the aggregate productive means of the world are not increased.

The characteristics of human nature are significant in all their forms, but no feature so astounds the careful observer as the general feebleness of memory, and the facility and promptitude with which the disastrous evils and losses of war, the serious consequences of commercial crises, and generally all experiences of exceptional magnitude and misery, are obliterated from recollection, leaving but the slenderest warning and restraining influence upon future conduct, which, slender though it be, grows dimmer and less impressive with the lapse of time, and speedily evanesces completely. This obliviousness is not dependent upon the advent of a new generation, with its own freshness of energy and vacancy of memories, but is plainly discernible, as a lasting element of the human fabric, in the people who have themselves encountered these disastrous events. The practical lesson thus taught to the investor, in support of calmness of judgment in critical times, is the inevitable succession of the equilibrium of prices after even the extremest descent.

The occurrence of international war necessarily, first of all, occasions an increase in the value of money. The rate of interest advances, for besides the element of remuneration for the use of capital, the rate must include a provision for the greater chance of loss to which loans are now subject. Considerable sums are required by the Government (obtained by borrowing in the form of the fresh issue of securities) for the transport and maintenance of troops, the collection of military materials, and the effective equipment of ships of war. The supply of money, which is sufficient in ordinary times for the needs of trade, is accordingly reduced by absorption in these national loans; and, commercial purposes (however restricted) still requiring the monetary medium of exchanges, the current demand exceeds the diminished available supply with a consequent enhancement of the charge for loans.

In England, at least, enormous expenditure would be entailed in the possession of an irresistible fleet for preserving the communication with its colonies and their open intercourse with each other. If this intercourse were arrested by an

enemy's vessels, either by the destruction of our fleet or by blockade, our carrying trade might, at all events partially, pass to alien hands; the importation of raw materials and food supplies would be checked; and commerce, manufacturing power and expansion, social condition, the receipt of foreign remittances in discharge of our mercantile credits, and the satisfaction of internal trading obligations might, in extreme contingencies (and, in all cases, the tendency in varying degree would be in this direction), prove so grave an influence as to imperil our national credit. With these momentous implications it is to me utterly inexplicable how, as it not infrequently has occurred, any statesman can descend to light and irresponsible language which could wantonly affront the feelings of another nation, with their possible expression in distrust, dislike and inimical action. (*See Note*, p. 162.)

These national borrowings, besides diverting funds from the channels of trading and investment, involve an additional burden upon the resources of the country in the form of taxation for provision of the interest upon the borrowed capital, and the creation (if the nation be then wisely governed) of a sinking-fund for its ultimate redemption. And the imposition of every monetary burden diminishes the demand for investments, and thus tends to reduce their value.

In the next place, the nation with which we may happen to be in conflict will similarly need to borrow for its corresponding requirements, and with corresponding effects in absorbing the capital usually appropriated to trade. Thus, besides the disorganisation of the internal industrial activity of each nation, the commercial arrangements between nation and nation are both narrowed and rendered more hazardous of completion and settlement. Merchants in each country cannot count so surely, in this disturbed condition, upon the solvency of those in other countries, and their continued power of meeting their engagements; the steady flow of business from commercial centre to centre, with its prosperous circulation and productive use of money, is thus arrested, and these results, with the apprehension of the incalculable effects of war upon each nation's future—the more effective, the vaguer be its nature—influence in a downward way the prices of securities in each country.

Moreover, as all wars commence with an unpredictable chance of involving others than the original belligerents in the struggle—so intimately interwoven are the territorial obligations and rights of nations—neighbouring States feel compelled to amass increased financial resources for provision against probable contingencies. Hence continental national banks and financial houses seek to fortify their monetary position. As they can always obtain gold from England—the world's centre of finance—by cashing here the commercial bills which they hold upon British merchants in payment for merchandise, a drain of gold from the Bank of England at once ensues—the bank notes received as the proceeds of these bills being presented at the bank for cash. This outflow of gold must, if possible, be checked (in order to preserve the integrity of our own financial obligations), and the current rate of interest accordingly is raised; the expansion of our own trade is thus restricted through the heavier burden of interest upon the capital by which it is carried on.

A concrete illustration will be useful. A foreign banking firm of high standing may desire to subscribe to a new loan proposed to be issued by one of the contending nations for warlike preparations—probably by the Government of that firm's country. Its free local capital is not likely to be adequate for the purpose; but the firm will in all probability possess among its assets substantial sums invested in the securities of other stable Governments—let us restrict the case here to investments in British securities—and with the object of taking up part of the fresh loan of its own Government, the firm will convert its British Government investments into cash, and by withdrawing the proceeds in gold, both depress the prices of those securities, and aid still further in their depression by the influence of the withdrawal from the Bank of England's Reserve, and the necessary augmentation of the bank rate.

In the recent war between Russia and Japan, Consols declined $1\frac{1}{8}$ points,[1] as it is termed, in the London market, in practically immediate succession to the first attack upon

[1] **Points**: If, for example, a security stood at the price of $93\frac{3}{4}$, a fall of $1\frac{1}{2}$ points would mean that the price had been reduced to $92\frac{1}{4}$ (that is, $93\frac{3}{4}$ minus $1\frac{1}{2}$).

the Russian fleet. It was shown that this result was due to the action of bankers in Paris and Berlin (who held Consols largely), in selling their holdings at once upon the occurrence of actual hostilities.

Apart from the irrecoverable waste of the means of industrial production in war, we may thus summarise the general effects in their relation to the prices of securities: (1) External commerce is restricted, in consequence of interrupted communications, uncertain markets, and the difficulty of measuring the solvency of merchants in respect of the discharge of their debts for goods: the savings available for investment are thus reduced; (2) the activity of internal trade is naturally lessened, if only by reason of diminished exports; (3) the constant foreign demands for gold deplete the National Reserve in the Bank of England, and demand an increase in the rate of discount for its protection and resupply; (4) this advanced rate reacts, by the onerous charge for borrowed capital, upon home and foreign enterprise alike; (5) the rate of interest further diminishes and annuls the practicability of speculative purchases upon the Stock Exchange which would have aided the maintenance of prices; and (6) the creation of additional Government indebtedness for warlike preparation and action, adds to the stock of existing securities, while concurrently, it diminishes the scale of demand for them by abstracting funds in loans, and the imposition of the fresh taxation which new borrowings entail. Moreover, the new Government issues tend in another form to depress the value of the existing issues. In all probability these additional creations of debt will bear, as a necessary attraction, a higher rate of interest than that current upon similar stocks; and since the security for the two is precisely identical, holders of former issues would be tempted to sell (and bring down the value), in order to invest the proceeds in the new stock with its superior yield. If war, for example, should arise between England and Russia, the volume of British and Indian Government Securities would receive the increment of stock, with the resulting effect upon existing prices which has been described.

On the other hand, it should be noted that many industrial undertakings would show an increased earning capacity, to be

reflected in advancing prices of their stocks and shares. War would create an augmented demand upon industrial bodies and firms for the equipment and provisioning of the Army and Navy; the materials for military operations would promote the fuller working of factories and manufactories by which they are produced; an impetus would be given to the shipping trade for the transport of troops and munitions; and the coal trade would be invigorated by the needs of an incessantly active fleet. As labour in certain branches of industry, particularly in those demanding skill, would be extended, wages would tend to rise in money, but their effective value would be counteracted by an increase in the cost of food and necessaries of life.

It was the usual traditional consequence of war that higher prices for wheat and lower prices for cotton prevailed, since an extended range of conflict frequently leads to the blockade of wheat-producing States, and thus tends to reduce the supplies in the market, when the principle of supply and demand causes the price to rise; and similar blockades have frequently in the past forcibly excluded markets of consumers of cotton manufactures, and thus by the abstention of demand by those customers have created a decline in price.

It may be remarked that where the system of conscription exists, a further serious derangement of commerce (affecting the nation which adopts it, and also its internal trade, and by community of interests all other nations with which it conducts commercial relations) is occasioned by the withdrawal of skilful, vigorous and experienced workers into the ranks of fruitless and degrading war.

In these circumstances the holders of British securities generally, and of the securities of stable foreign nations, need not be alarmed at the disturbance of prices, whose former level will again be reached. Memories of disaster will fade and perish with impressive speed, and merge into recovered confidence with its embodiment in values; the restorative powers of material Nature seem to spring from a perennial fount; and the depression of securities, temporarily produced by the urgent issues of fresh supplies which war requires, will, in time, be restored to equilibrium with the public demand,

through the agency of accumulated savings. It is one of the surest teachings of experience—when contemplating a fall in stocks and helplessly pondering a sale lest a severer fate should come—that the most direful and dreaded troubles which we apprehend are precisely those that never occur; as a writer once epigrammatically phrased it—his life would have been replete with happiness had it not been for the miseries which never appeared.

The heavy decline of values affords the fitting period for investments in stocks which are intrinsically sound. In respect of the shares in industries likely to receive an accession of activity by the demand for the materials and manufactured articles which war involves, the increased values present a favourable chance for sales according as personal circumstances suggest to be necessary or expedient. For the stimulated vigour is of more or less transient duration.

A perplexing difficulty might be experienced sometimes by those who hold the securities of one of the belligerent nations: the only clear and expedient course to the ordinary investor would appear to be that, unless that nation were one of the strong and stable communities of the world, a speedy sale, if practicable, should be effected in apprehension of the subsequent results of additional taxation, declining credit, and the possibility of derangements by social discontent.

It might be added that American and Colonial securities would probably be benefited by a continental war, since the diversion of the customary commercial channels would be likely to create fresh openings for the expansion of trade in those countries.

NOTE.

The possible gravity of our national position—if, in consequence of an ineffective fleet, we relinquished our supreme dominion of the sea—is impressively testified by the facts that we depend (to specify a few items only) upon foreign countries and the Colonies for 83 per cent of our wheat and flour, 45 per cent of our meat, the whole of our cotton materials, 75 per cent of our wool supply, and for the raw material required for 40 per cent of the pig-iron we manufacture. The "daily bread," accordingly, of four-fifths of our population is involved in the unassailable maintenance of open ocean-routes; and with restricted abundance of materials from abroad for manufacturing purposes the power and scope of British capital and labour would be largely annihilated.

CHAPTER XII

DEAR AND CHEAP MONEY, AND THE EFFECT OF EACH ON THE PRICES OF SECURITIES

THE chief fact that determines the dearness or cheapness of any commodity is the relation between the quantity which certain persons require and the quantity supplied by others to meet that demand. If commodities are offered for sale in excess of the quantity which buyers at the time desire to possess, the price falls by reason of the competition between the suppliers, who naturally wish to dispose of their stock (or they would not have brought it to market), and thus bid against each other in the shape of a reduction of price; if people desire to obtain a greater quantity than that which is available at the moment, the price rises in consequence of the competition of the buyers to acquire the stock against each other's biddings.

It may here be noted that when one thing is measured by another thing in exchange—when, for example, so much corn is exchanged for so much iron—the ratio between the two quantities so exchanged for each other is called the *value* of each; so much corn is the value of so much iron, and *vice versâ*. But when, instead of expressing the value of one thing in terms of the quantity of another thing which is offered in exchange, we state the quantity of money which would be given, that money is termed (not the value, but) the *price* of that thing.

In considering the question of exchange-value (either in the form of commodities for commodities or commodities for money) we must bear in mind the axiom that there cannot possibly be two values or prices for the same article (and the

same quality of the article) at the same time and in the same open market. Nor must it be forgotten—as is frequently done in discussions on exchanges—that every producer is concurrently a consumer, so that although a seller of any commodity (at a period of low prices) realises less profit—that is to say, he has less money left in hand after deducting from the price obtained all the charges he has incurred in the production of the article—he benefits as a consumer in its diminished cost. Since no definite understanding or reasoning can proceed unless the terms employed be precise in their meaning and consistently retained to that single sense, I repeat briefly what has already been stated respecting the term money.

Money in this country is gold, and serves the double duty of measuring the value of goods against each other, and acting also as the substitute or medium of exchange, instead of the actual and direct exchange of the goods themselves. Considering, however, the loss that would ensue by abrasion of coins from friction and constant use were they physically transferred from hand to hand, the place of gold is taken, in exchanging, by paper money—notes, cheques, and bills of exchange—which are simply evidences of indebtedness, and depend for their validity upon the acceptor's feeling of certainty that they will be readily converted into the real money which they profess to represent. Hence credit, or confidence in the character and solvency of the givers of these documents, constitutes the foundation of their acceptance. A failure of credit or trust implies an objection to receive these substituted cheques and bills, and leads to the exaction more extensively of bank notes in the settlement of obligations, since their discharge in gold is securely protected by the bullion reserve in the Bank of England.

The element of credit in extending or restricting the range of transactions in business cannot be too decisively impressed upon the reader; and the apprehension of its meaning and action is simple. A tradesman gives credit to his customer in delivering goods without immediate payment, because, from previous dealings with him, and his general reputation, the trader is assured that his character and solvency are guarantees

that the money will be paid; he places credit or trust in him (or the buyer receives credit) on account of those experienced qualities. And, similarly, in the wider interchanges of commerce, the characteristic of credit is the *deferment* of payment in coin by the buyer—for the accepted cheque may pass from hand to hand before it is presented for discharge to the bank on which it is drawn, and a bill of exchange (as an admitted promise to pay) postpones the actual testing of the giver's capacity to settle until the bill has matured. The credit or faith reposed in a person's honour and financial standing—the two conditions are united in these cases—justifies the seller in parting with goods for a documentary acknowledgment which he feels sure will, at the appointed time, vindicate its expressed reality by the substitution of cash.

Money is said to be cheap or dear when the amount available (the surplus savings not at the time invested in trading or in securities) for loans and the discount of bills is plentiful or scarce in proportion to the demand for its use; and the value of money (its cheapness or dearness) is measured by the relation between each £100 of it and the sum charged for its loan—the rate of interest per cent. This relation naturally varies, and the rate of interest required depends upon the amount of money which those who possess it desire to lend, and the amount which others wish to borrow for trading and investment purposes Money being simply a commodity selected as a suitable medium for effecting the interchange of material commodities useful and desirable, the price paid for its use is obviously controlled by the relation of supply and demand: an increased number of borrowers (and an increased volume of borrowings) tend to augment the rate of interest; as the borrowings decrease, the need of employing the supplied capital profitably produces, by competition between lenders, a diminished price or rate of interest. This is a general statement affecting the charge for loans: in particular cases the rate is also influenced in its amount by the nature of the borrower's business, its riskiness or comparative freedom from violent fluctuations, the soundness or imprudence with which he conducts his operations, his financial position, and generally the credit (which includes these features) which he possesses

for integrity and promptitude in fulfilling any obligation he may assume.

But the dearness (or a high rate of interest) and the cheapness (or a low rate of interest) of money are merely relative terms, and imply a standard of comparison by which the value at any period is to be measured, or their employment would be meaningless. Money, then, is reckoned dear or cheap at any time when, compared with the value (or rate of interest) at another specified time, the price required for its service has increased or become lower. We may thus employ as the standard the value current yesterday or at some earlier date, or the average rate which has been charged over such a number of weeks or months or years, as may be selected to be the unit of comparison.

So far as the prices of Stock Exchange investments are concerned the effect of dear money (an increased rate of interest) is largely, though not entirely, related to the volume of speculation then existent in stocks and shares. Speculation, as distinguished from investment, is the difference between buying simply for the purpose of selling at a profit, and buying for the purpose of acquiring and retaining a permanent source of income. Speculation is conducted by the use of borrowed money: as the rate of interest charged upon it increases, or money grows dear, the original benefit to the speculator, in the excess of the return derived from the purchased security and the interest he pays upon the loan, gradually diminishes, until the point is reached when the two coincide and profit ceases, and finally the lower point when the first condition is reversed, and the rate of interest surpasses the rate of return. The speculator's capacity to sustain this heavier burden, from account to account, in the hope of more propitious times, sooner or later reaches its limit of endurance; the bargain must then be closed by the sale of the purchased stock, and its general market value in consequence falls. Banks and other lenders, who have advanced the money with which the stocks have been purchased, call in their loans at such a crisis, and the securities are sold to discharge the debts. The price will stand in inverse ratio to the volume of sales, and speculative sales, conveying apprehension to the public who rarely

examine and estimate causes, will be succeeded by sales on the part of timid and untaught investors (in trepidation of a deeper plunge in values), who should preferably reckon the time propitious for purchases.

For stocks, like material commodities, when pressed for sale, must carry a diminished price to tempt the buyer--particularly when buyers generally become scantier by reason of the fall, and by reason, further, of possible purchasers finding no attraction towards the investment market when their funds, in a period of high interest, can be more profitably employed outside in trade and loans. In these modes the dearness of money, or a high rate of interest for its loan, causes a depreciation of securities, although these securities may remain as intrinsically valuable as before—the variation being consequent upon an alteration in the ratio of supply and demand of money.

The reversed story is told when money is cheap or the rate of interest exacted from borrowers is low—loanable resources being then in excess of the demand for trading purposes, speculation and investments. The implication of this condition proves that commerce and trade are dull; that in consequence of the fewer transactions less money is required to conduct them: the diminished creation of debts incurred in the purchase of commodities is necessarily reflected in a sparser number of bills and cheques; and loans and discounts consequently, so far as trading operations are concerned, attest the attenuated state of competition. But when trade and trading loans thus cease to attract capital by reason of the small return, owners of money find that investments on the Stock Exchange, carefully selected, form a more profitable venture; and speculators, particularly, are stimulated to try their fortune there with money borrowed at a rate inferior to that which can thus be realised. They are tempted further by the expectation that, as all conditions of business change and revolve, the values of securities may rise (to their profit on selling) as the public withdraw their money from deposits and other sources and seek the more remunerative yield of stocks and shares. The values of securities become thus favourably affected; but, as has elsewhere been shown, the opportunity which benefits investments is precisely that which introduces a depressing element in the form of new

industrial undertakings, attractively organised, which prevent, so far as the public respond to their inducements, part of the fund of savings and comparatively idle money from proceeding to enhance prices by purchases on the Exchange.

The reader will frequently meet with the remark that "the rise in the bank rate produced a fall in the prices of securities." The preceding explanations will enable him to interpret the statement; and although the relation between the two facts has already been generally described, it may be serviceable again to point out their connection. When the rate of interest advances, or money becomes dearer, those who have purchased stocks on borrowed capital when money was cheap, sooner or later find that the rate they have now to pay on their loans exceeds the rate realised from the investment; their power of holding the stocks consequently diminishes (a man cannot afford to give $4\frac{1}{2}$ per cent for a loan and only receive $3\frac{1}{2}$ per cent from the security which it brought); their bargains then must be closed by a sale of the stocks, with a resulting depression of values. The same cause—the advance in the price of money—prevents speculators from borrowing for investment on the Exchange, and thus reduces the extent of demand by the diminution of possible buyers. And, tending in the same direction, investors who would have purchased stocks are attracted by the higher rate of interest to lend their savings to better advantage by depositing the money with banks at the increased return, or making advances directly on the current terms. They thus obtain a larger income than investments on the Exchange would yield. Hence, in consequence of sales on the one hand and the dearth of buyers on the other, the demand grows inferior to the supply, and prices decline as the effect of these combined causes. The contrary result is produced by a low rate of money; capital is borrowed for Stock Exchange investment on account of the superior yield from stocks, and loans at such a period securing but a small remuneration, savings are naturally directed to more productive sources on the Exchange. (*See Note*, p. 169.)

It is an observation generally applicable to the conditions and effects considered in this book that the various courses of events and their results must rather be regarded as tendencies

—which the history of financial and commercial experience has disclosed—than procedures and consequences which are competent of exact measurement and the assignment of mathematical relationships. They are entirely valid and reasonably predictable on the whole, but on any particular occasion they may be obscured and masked by the introduction of causes peculiar to the occasion itself.

NOTE.

The Bank Rate, it is seen, does not in itself stand in a direct causal relation with the prices of securities as the sole determining factor in their movements. Rather are they both the effects (though the *connected* effects) of a primary cause—the apprehension and sense of instability resulting from the diminution of the country's resources and commercial soundness, or the buoyancy and confidence attendant on the financial strength of the nation and its expansive trade.

CHAPTER XIII

THE CONDITION OF TRADE IN ITS EFFECT UPON THE PRICES OF SECURITIES

THE effect of the vicissitudes of commerce and trade upon the prices of securities on the Stock Exchange has been so fully explained in the various divisions of this book that little more remains to be attempted beyond a brief connected view. Trade being the interchange of material commodities of a useful nature desired by consumers (Commerce being simply trade upon a wider and international scale), a greater number of such exchanges, or sales and purchases, obviously signifies an extended trade; extended trade means that people want more of the articles which are agreeable to them for use in some form than they were able previously to afford; merchants accordingly give larger orders, and tradesmen—the intermediaries between the merchants and the buying public—keep greater and more varied stocks; improved machinery (expediting the production of the manufactured raw material whose finished forms are wanted) involves more labour and wages; by cheapened processes these articles become reduced in price and hence command an ampler circle of consumers; while increased wages are spent at tradesmen's shops and thus enable them to expand their trade. The prosperity of any trade comprises others in its fortunes, for the traders themselves are consumers, and their purchases from each other are enlarged; the export of goods to foreign nations is augmented, and imports, as the payment of their prices, expand; the coal industry is improved, for additional machinery requires more coal, and the vessels which convey the goods abroad and home demand larger coal supplies in proportion to the greater number employed and their more frequent voyages; an increase of

exported and imported merchandise provides more work, and more remunerative work, for the railways—the heavy lines, as they are termed; and the enhanced gains which are realised during periods of active and prosperous trade enable holidays to be more readily taken, and the passenger trains (or light lines) ply a busier traffic. So integrally allied are all the branches of the industrial organisation, that a propitious start at any point radiates its stimulating influence throughout the mass; the circle of prosperity which the cast of good fortune creates passes with enlarging circumference beyond the bounds of the nation in which it formed.

Now every interchange of goods is the creation of a debt from the buyer to the seller; the evidences of these debts are cheques and bills of exchange, home and foreign, and when transactions multiply these modes of settling the indebtedness which they produce multiply in a corresponding ratio. But more bills require more discounting (their reduction into present money) so that the proceeds may be promptly invested in additional operations of trade; and more discounting demands a larger supply of capital with the bill-brokers as the means. Merchants and businesses generally require also direct loans on security for the conduct of their expanding engagements, and the banks which make the advances are kept vigorously active in the complete employment of the funds which they hold or can command. As prosperity continues to advance, all apprehension disappears, and credit, or trust in the solvency of each person by the other, attains its climax; cheques and bills in exchange for goods are readily accepted in this state of general assurance that their presentation for payment will at once secure a settlement in money.

And as a necessary consequence of the full employment of all the loanable capital that London possesses in mercantile transactions and enterprises which yield so high a rate of remuneration—either directly, by traders themselves investing their profits in further extensions, or indirectly, by the owners of money lending it to banks for advances to merchants and traders, or themselves purchasing shares in industrial companies—the tendency of the prices of securities upon the Stock Exchange is towards a progressive fall. For it need not be

explained that this competition for capital increases its price or the rate of interest at which it can be lent.

Thus again to summarise our results of observation during an era of expanding trade: (1) the profits of trading are utilised in the trades themselves; and (2) those who command the control of money employ it in advances (directly or indirectly as explained) at the higher rate of interest, which the competitive demand for capital in commercial transactions produces. These causes divert money from Stock Exchange investments, and hence the demand for those securities is relaxed.

Auxiliary to these influences come into operation two other sets of action in the same direction: (1) some of the more enterprising or thoughtless investors on the Stock Exchange dispose of their holdings under the seduction of the more advantageous rate of interest obtainable outside—oblivious of the fact that its duration is evanescent; and (2) persons who have purchased stock with borrowed money, when the rate of interest was low, are subject to intenser strain as the pressure of the rising rate of interest becomes weightier, and the dismal story is speedily ended by failure, and the sale of the securities they can no longer retain. For prices of investments, accordingly, the only fate is fall. If the owner of a commodity which he desires to sell finds buyers few, he must diminish his price to tempt a sale, and each reduction of the area of purchasers compels a corresponding abatement of his gains. And securities are but commodities, obedient to the same power of supply and demand. The wise and vigilant investor finds here an opportunity for profitable use.

The reader has simply to substitute a course of events of an opposite character to that depicted to perceive the influence upon investments of a dwindling and unprosperous volume and state of trade.

The condition of trade may be deciphered in various ways.

The Board of Trade Returns of the extent and values of exports and imports present the magnitude and vigour or the restriction and inactivity of our commerce in their larger or lessened totals. A prominent index is thus gained to the prosperity or adversity of the nation as a whole.

In examining these statistics for guidance as to the commercial condition of the country, it is necessary to regard the

quantities of goods, and not simply their values, since the import of a particular commodity may be greater in bulk at one time than another, but its value may be less, or, in other words, the articles have been bought at a diminished cost. Or the quantity imported may be smaller but has entailed an increased price. We may be importing or receiving a more augmented supply than usual of raw materials for conversion into finished products in our manufactories, for exportation or sale in turn, and the significance is that our industries, power of consumption, labour, wages, the more extended employment of capital, and the profits upon capital are in vigorous and hopeful exercise.

But the fact that we import or buy a larger volume and value of goods than the quantity and price of those which in exchange we export or sell forms a constant perplexity to many minds. If the purchases of the nation always exceed its sales in value, the nation, it is often alleged, must be constantly incurring debt and pursuing the path to financial embarrassment and even bankruptcy. If a tradesman who makes shoes sells them to other tradesmen in exchange for food, clothes, and other forms of necessity and comfort, we can see that through the instrumentality of money he is really bargaining (or exporting) shoes for these different commodities (or imports) which he receives. Similarly with a nation: the payment for the imports it needs and procures is settled, not in cash, but in the exports of goods to other countries of, on the whole, an equivalent value. The two exchanges should therefore be approximately equated. But when the amount of purchases surpasses the amount of sales, surely, argues the bewildered critic, an accumulating debt is being incurred whose settlement, when it arrives, must strain the national resources!

The fact that, notwithstanding this continuous excess of imports over prolonged periods, we are still prosperously existent and full of enterprise, with unrivalled means to support our efforts, should in itself furnish an ample and conclusive reply.

But the simple explanation will be more effective upon the troubled and untutored mind. England is the largest carrying nation which history has ever known, and its vessels form the principal mode of sea-conveyance for the goods of other countries, not simply to England, but to every port the globe possesses. Hence we earn a very substantial sum in freight

(or cost of conveyance) for this predominant and international service. To this annual total we must add the very considerable amounts received by our shipping-merchants, agents, and banks for the acceptance of foreign bills, in the form of commission, brokerage and charges, which constitute an appreciable and continuously recurring debt owing to this country by foreign lands.

The people of England, further, have invested enormous sums in the purchase of the securities of foreign countries, and the interest upon the capital thus employed is in constant course of payment to the holders here. All these debts are not paid in gold—for this device would prove too cumbrous and costly—but in goods (or imports) whose proceeds discharge this annual aggregate indebtedness in money. Thus the registered imports are necessarily, on these accounts, considerably in excess of the actual and visible exports. But the balance is maintained.

This can readily be shown. In the Board of Trade statistics, the Imports are entered as to value with the addition of the charges for freight and insurance connected with their shipment to our ports; but the Exports are recorded *without* the inclusion of similar costs. Hence the Exports must be increased by the earning of British shipping engaged in the commerce. (*See Note A*, p. 181.) Moreover, some items are omitted in the Returns from both sides of the account; the value of the Exports of ships themselves, for example, which have been largely manufactured by this country and sold to foreigners, were not included in the official statements until 1899. But we leave out these minor points and adopt a broad view. If the actual Exports recorded be represented by £x, and the total Imports by £$(x + y)$, the National Commercial Balance Sheet would be thus expressed:—

Liabilities.	£	Assets.	£
Imports into England . .	$x + y$	i. Exports from England .	x
		ii. Sums due to England for freight, commission, and interest	y
Total	$x + y$	Total	$x + y$

It is thus observed that the "*y*" portion of the amount which we pay for imports is simply the total of the sums which we receive from different countries for the kinds of remuneration mentioned, and the interest upon our capital invested abroad. This balance-sheet is not a fanciful picture or surmise: skilled investigators have from time to time (each confirming the other) made close estimates of the amounts which the country receives for shipping and other services, and for interest upon our foreign securities; and although, of course, in so difficult and intricate a question an equality of the account cannot be established to a pound, the figures are sufficiently exact to prove that when all items are taken into consideration the two sides of the balance-sheet very approximately agree. (*See Note B*, p. 181.)

Now the value of these debts, due to English merchants, shipowners, and investors—freight of vessels, insurance, charges, agency commissions, profits and interest—do not appear in the valuation of our Exports in these Returns, and hence, before our consideration of the apparent discrepancy between our Exports and Imports is concluded, we must add these receipts by us to the account. Is not the inference, or rather the assertion, justified, that the more the Imports exceed, the more impressive evidence is furnished to the extent of our national weath? If a prudent tradesman be found, on examination of his acts, to be buying more articles than he sells, is he necessarily approaching bankruptcy, or is it not rather the income he derives from the accumulated fund of savings which his intelligence and skill have amassed, which enables him easily and justifiably to expand more widely in superior and more varied forms of comfort and even luxury? His additional expenditure (or imports), instead of indicating financial weakness and rashness, furnishes an index to his stability and prosperity. Equally so with the mass of individual traders who constitute mercantile England.

It is sometimes difficult to make a learner understand that imports of *goods* form the necessary mode of payment of the prices of exported goods. The perplexity generally arises from the fact that the learner considers only an individual transaction instead of the mass of transactions which international com-

merce implies. Assume that he has sold (or exported) to a merchant, AB, abroad, £100 worth of manufactured articles; let him receive from AB, in discharge of the price, a draft for the £100 upon an English firm of merchants, which he presents to his banker for discount, obtains notes, and cashes them at the Bank of England. "Here," he retorts, "I have been paid in cash, and not in goods." But, consider; the foreign debtor, AB, could not make a call upon the English firm to pay the money, unless that firm had first received the equivalent of the amount. How can this occur? The foreign debtor, AB, bought the bill or draft for the £100 (we omit, for clearness, consideration of the rate of exchange and charges) from a local exchange dealer, for which he paid cash on the spot; and then transmitted it to his creditor (the learner) in England, as has been supposed. But how did that bill or draft come into existence, in order to be bought and sent? Simply because some other merchant in the place abroad had sold *goods* to the English firm in question (that is, the English firm had imported those goods) and had drawn the bill upon them for the price, and sold it for cash to the local money dealer from whom it was purchased by AB. Thus, although the person we have been considering (the learner) receives a bill which he converts into cash, the bill (and cash) is the representative and sign of the import of goods into England, that is to say, the learner's export has been really discharged by an import. (*See Note C*, p. 183.)

Another valuable indication of the condition of trade is supplied by the Bankers' Clearing House Returns. This House is an admirable arrangement for avoiding the inconvenience and expense of every banker, to whom customers have paid in cheques drawn upon other banks, being under the cumbrous necessity of directly presenting these cheques to the various banks on which they are drawn, and receiving their several payments in notes, or cash, or draft. By the device of a Clearing House—a building devoted to this purpose—each bank is represented by a clerk, and the several clerks exchange the whole of the cheques and bills which they hold against each other. If Bank A, for example, has received (paid in by customers) cheques drawn upon Bank B, for £5,000,

and Bank B similarly possesses cheques for £3,000, drawn upon A, B owes A £2,000, and closes the account by handing A a cheque for that amount, drawn upon the Bank of England, where every member of the Clearing House maintains an account for this express purpose.

During the year 1907 the cheques and bills cleared in the London Banking Clearing House amounted to upwards of £12,730,000,000. In other words, this enormous sum expressed the total of the payments made and received during that year by means of bills and cheques. As our internal transactions in trade are completed by means of these paper documents (resting upon gold), the range of the clearing, as it is termed, furnishes a direct indication of the volume of those transactions —in other words, of the activity or depression of trade. (*See Note D*, p. 183.)

The railway traffic returns are very serviceable in discovering the extent of the country's trade. An increased amount of receipts in the heavy or goods lines shows an enlarged conveyance of coal, iron, cotton, and so on, and indicates, therefore, a revived condition of those industries; while diminished receipts upon the southern, or passenger, lines imply a reduction in the extent of the Continental and holiday-making traffic.

Another indicative feature is presented in the amount of the "other deposits" with the Bank of England, and the "official minimum" rate of interest which the Bank charges for making advances, and discounting its customers' bills. If the deposits be enlarged the rate of interest is low, and the sign furnished is that the elasticity and energy of trade are diminished so that less capital is required to be borrowed for its conduct, and the competition for that capital being reduced, the terms charged for its use are small.

But a sound condition of trade—a condition, that is to say, which is genuine and embodies the exchanges of goods which are really needed, and within the means of those who buy—passes by graduated stages, and with inevitableness, into one which is termed a feverish or unhealthy state. And a brief summary of a recurrent cycle (a revolving round) of industry is not less interesting than fruitful of teachings to investors.

The operations of men in business (I cannot too insistently impress), as in other forms, are the outward expression of the activities of feeling: the desires to attain certain objects or ends, intensified or depressed by the greater or less facility afforded by external events to that attainment. These external influences—such as abundant harvest, profitable trading, the absence of the alarms of war, or political or social troubles, the opening of fresh markets—induce the hopeful state of mind which impels energy towards ends; or it may possibly be, as some suggest, that buoyancy of spirits at any period occurs —in the universal rhythm of nature—as the natural reaction from a prior languid condition induced by misadventures in commerce and business generally. Moreover, like sleep, there appears to be some element of periodicity in human consciousness, tending to restore and preserve a level of mental equilibrium, whose cause has not been deciphered.

As a fact of observation and experience, at all events, men generally at some time become inspired by exceptional hope in the future which stimulates unwonted enterprise. Every event at such a period is interpreted as a premonition of prosperity. Money becomes invested in the modes through which this prosperity is to be secured; existing manufactures and trades are extended; the creation of new ventures in industry forms an outlet for redundant energy; and incessant speculation in stocks and shares is a signal mark of this incipient stage. The prevalence of a low rate of interest on borrowed capital at the outset of this industrial course, incites the struggle to grow promptly rich; and although the competition for loans causes a gradual advance in the rate, the confident expectation of a profit far surpassing the price paid for the means of its acquisition neutralises for a time the deterring effect of dearer money.

This vigour of hopefulness, whether it originate in one prominent trade or a class of trades, speedily embraces all by the contagion of sympathy; the vision of prosperity in one direction conjures up the probability of success in others: and the realisation of unusual profits in one branch of trade naturally overflows, in profuser expenditure, into other branches, and adds a material impetus to the anticipations of hope.

Buoyant speculation, especially in the purchase of the shares in industries which seemed endowed with perennial good fortune, aids the growing inflation, and a lengthened and propitious day appears to have dawned. The opportune promoter submits his novel schemes with blatant and profuse advertisement to a credulous public, which, in a saner condition of the general mind, would have remained hidden in their proper obscurity.

This incessant overtrading—beyond the genuine needs and means of the community—is speedily followed by its Nemesis: it is now discovered (as overtrading signifies) that, in this period of commercial insanity and fictitious wealth, commodities have been produced in excess of the power of payment, in supplies surpassing the requirements of the people, and now lying cumbrously idle in the stores, but yet disastrously active in the owner's ruin through growing waste and decay, and the attendant burden of interest upon the capital which they embody and destroy. Financial institutions, infected by the apparent prosperity, have advanced largely to promote these extensions: apprehension compels them to call in, often hopelessly, their loans; money grows scarce and dearer; and without money the baseless commercial fabric which impatient hands have built must fall; bankruptcy succeeds bankruptcy with fatal iteration; and hope merges into dismay and despair. The only remedy, besides a return of common sense and prudence, is the free utilisation of whatever money is left available to sustain the industries and businesses which remain intrinsically stable, by enabling the owners to discharge their debts and continue, for at such a time credit or trust has vanished: paper documents are merely paper void of the confidence in the gold which constituted their worth. The burden of redemption of public confidence—on which the retrieval of a sound and normal system of business essentially depends—falls upon the Bank of England's reserve.

The occurrence of these commercial crises, as the concluding stage is termed, is periodic: in other words, trade passes through a cycle of recurrent changes in about every eleven years, and Professor Jevons has tabulated the succession approximately as three years of genuine trade, two of excited

trade; then in the next year the bubble or maximum of inflation and fictitious values, succeeded by the year in which the inevitable collapse occurs; and finally about three years of depressed trade, when, the cycle having been completed, the series of variations which has marked its course is regularly repeated.

Lord Overstone, the banker, presented the procession in a closely similar form: quiescence, improvement, growing confidence, prosperity, excitement, overtrading, convulsion, pressure, stagnation, distress, quiescence once more.

A well-known banker has stated that "no one is likely to forget the temporary effects of a panic if he has lived through one." The predominant characteristics are mutual distrust and personal fear, and as the crisis proceeds to culmination, every physical and mental form of terror into which the emotion has been analysed by psychologists is exhibited, intensified by its participation by a multitude, with action and reaction in incessant play and force; the concentration of the entire nervous energy upon the organs of perception, the fixation of the mind upon a particular class of ideas on which perception is exclusively centred, and upon the physical movements which are correlated with those ideas; the abolition of the activity of volition except in the direction dictated by the dominant feeling; the complete depression of spirit and hope by the intrusion of intense foreboding of evil; the sense of repellent suspicion individually and collectively generated; and the final submergence of the intellect, and signally its power of judgment, under the flood of the single emotion which sweeps away all barriers of control.

The cycle or circle of occurrences is not universally identical in its exact duration, either as regards the partial periods of which it is composed, or the precise term of its completed round; but it is remarkable to observe how closely and punctually the more important collapses of credit (a synonym for commercial crises) tend to revolve in the specific and recurrent space of about eleven years.

I have collected in Chapter XIX all the available information within my reach upon the subject, and to this the reader's attention is particularly directed as an indication (in addition

to its practical teaching upon the stability, in the long run, of investments) of the uniformities of action which connect the phenomena of nature and of men into an organic whole.

Note A.

The value, again, of exports declared by the owners of the goods and agents cannot obviously comprise the profit which the exporters will realise on their sale abroad. Yet this future profit constitutes an important portion of the value of the merchandise which is dispatched.

Note B.

The reference to the substantial equality of the two sides of the National Balance Sheet of Imports and Exports deserves expansion.

In 1882 a statistician of recognised authority instituted an exhaustive and very varied inquiry by different lines of investigation. His results showed that the service rendered to the carrying trade of the world by the United Kingdom (as the pre-eminent home of ships and the paramount financial Clearing House) had created an annual credit in favour of this country from foreign merchants of at least £60,000,000 for the use of vessels; while the similar credit for acting as financial agents of foreign traders amounted to at least £20,000,000. This sum of £80,000,000 consequently constituted a debt due to the United Kingdom, in addition to the exports of goods and materials recorded in the Official Returns. This amount has been appropriately described as an *Invisible* Export—invisible as failing to be included in the published statements. The foreign indebtedness due to England in connection with its shipping service consists (as has already been partly mentioned) of the cost of carriage (or freight), the wages and provisions of the crews, the equipment and repairs of the vessels, the charge for insurance and renewals, and the profit realised upon the capital invested in these forms. The indebtedness to the United Kingdom expressed in the £20,000,000 comprises the commissions to which our bankers and merchants are entitled for acting as the agents of foreign customers over the civilised world; the charges made for the acceptance of foreign bills (created by the exchange of goods) by our merchant-bankers, together with the brokerage involved in the sales of commodities consigned by foreigners to England for that purpose. At the date when this writer conducted his inquiry, the extent of British capital invested in foreign and colonial securities and properties was estimated at £1,500,000,000,[1] and an additional credit was thus established in favour of this country from abroad of over £67,000,000 a year if the average return at that period be assumed at 4½ per cent. The excess of our Imports beyond Exports had amounted, during the preceding few years, to an annual sum of £120,000,000, so that, when these invisible exports were incorporated into the account, together with the interest upon foreign investments, the apparent inequality of the National Statement of Exchanges

[1] It is now approximately assessed at about £3,000,000,000.

was fully redressed. In 1905 the sum of about £157,000,000 represented the surplus of our Imports (excluding bullion and specie), and it was then calculated, after laborious examination, that the annual amounts owing to this country in the form of earnings for the use of British ships, commissions and brokerages, reached £100,000,000. The income payable yearly to investors in the United Kingdom as interest upon the collective capital which had then been placed in foreign securities, was computed at about £60,000,000. Again, then, when all the elements of the National account are brought into consideration, an equilibrum is produced between its Assets (or Exports) and its Liabilities (or Imports).

In the year 1907 our Imports (according to the Board of Trade Returns) amounted to £719,000,000 (including gold and silver bullion and specie), while the Exports (with bullion and specie) attained the sum of £586,000,000—thus disclosing an excess of Imports of £123,000,000. Our shipping earnings and services were estimated at £90,000,000, and the interest upon foreign and colonial investments as £100,000,000. Thus, once more, a balance is effected ; indeed, in this year it is shown that our Exports really surpassed the Imports in consequence of an increase in the foreign and colonial securities in which the nation was interested—that is to say, the creation of an augmented indebtedness of foreigners and colonists to this country. It hardly requires to be pointed out again that our shipping functions, our financial services to foreign traders, and the investment of our surplus savings constitute as real and genuine an export of the produce of our capital and labour as though that capital and labour had been embodied in actual merchandise. Money and work are stored up in material goods exported ; equally are they stored up and expressed in services, shipping and financial, and in the employment of money in foreign securities—that money itself being the production of labour and capital. It is scarcely worthy to expose specifically the ignorant delusion that Imports are discharged by money—the reality being that a portion of the imported goods brought by our vessels to this country are simply and ultimately the payments for work executed by us for foreigners or British colonists—but it is tempting to present a conclusive decision upon the point extracted from the Board of Trade Returns for 1907. The excess of Imports of commodities during that year amounted to £128,000,000 ; the value of the gold and silver bullion and specie imported by us was £73,000,000, while the corresponding value exported of the latter description reached only to £68,000,000. Thus, instead of *paying* for this excess of the Imports of goods (or "balance of trade") in money, we actually *imported*, on balance, a sum of £5,000,000 in *money* (bullion and specie). It may be worth while adding that when British capital is invested in foreign and colonial loans and properties, an equivalent value of commodities is exported as the exchange for the securities thus acquired and transmitted to us. The inquiry may be submitted that, since a British investor, when purchasing a foreign security, discharges the price in England by a cheque (which, of course, is guaranteed by gold), how can the payment be said to embody an export of goods? The answer is, that the bankers with whom the money is lodged advance it to merchants and manufacturers for the purposes of their business, and they, in turn,

convert it (with associated labour) into articles for dispatch abroad—thus effecting the exchange above mentioned of commodities for securities expressive of claims upon the funds of those nations by whom such securities have been created.

Note C.

Freight, again, may be sometimes paid for abroad, although London is the customary place; but the receiver of the freight abroad at once purchases bills upon London with the proceeds, and this course he is only able to adopt by dispatching goods to England as imports here. Thus, whether freight be paid abroad or in London, the result is identical—the remittance, that is to say, of commodities to discharge the sums which have been earned by our services in shipping and agency as constituting a charge against the foreigner.

Note D.

The Returns of the Bankers' "Clearings" are accompanied by an analysis of their contents, and an explanation of two items is interesting. Out of the total of £12,730,000,000, the clearings on "Stock Exchange Account Days" are stated to have been £1,800,000, and on the "Fourths of the Month," £540,000. The "Account Days" are those, it will be remembered, when transactions on the Stock Exchange must be settled by the delivery of securities and their payment; and hence the sum above quoted affords evidence of the extent of speculation and investment upon the Exchange during the year. It was formerly the custom to draw commercial bills on the first of the month which, with the three days of grace, caused them to mature for payment on the fourth of each month. This practice has, of late years, fallen into comparative desuetude although a few warehouses continue to adopt it. The amount of bills which become payable on the fourth of the month (£540,000 in the preceding citation) is still, however, deemed of sufficient importance to justify the retention of this separate record in the Returns. Bills for the settlement of commercial transactions are now generally drawn on any day of the month, although a preference prevails for the seventh, the fifteenth, the twentieth, and so on, with maturity consequently on the tenth, the eighteenth, and the twenty-third. I am informed by the Clearing House authorities that the increased modern banking facilities have caused the cheque to supplant to a large extent the bill of exchange, and it is found that the beginning of the month is a favourite time for the settling of monthly accounts. Hence, the column headed "Fourths of the Month" in these Clearing Returns is serviceable, though now in a considerably reduced degree, in disclosing the vigour or sluggishness of *general* trade.

CHAPTER XIV

MISCELLANEOUS CAUSES AFFECTING THE PRICES OF SECURITIES

THE importance of the conviction that the values of securities depend upon ascertainable causes—furnishing accordingly a helpful means to decisions and serenity of judgment—suggests a fragmentary collection of other determining conditions besides those which have been described in minuter detail. It will be observed generally, that, as in nature, the causes which influence prices usually act not singly, but in closer or slighter conjunction.

The dearness or cheapness of coal depresses or advances the values of the shares of shipping and railway companies, and those of manufacturing industries. Debenture stocks and preference shares, of course, remain unaffected, since their interest is fixed by contract. It was publicly announced in the early part of 1908 that in consequence of a rise in the cost of coal the coal bill of the Caledonian Railway had increased from £151,000 a year in 1898 to £360,000 in 1907, while in the Cunard Shipping Company an additional charge of 1*s.* or 1*s.* 6*d.* per ton would augment the yearly cost for coal by £100,000. (*See Note*, p. 186.)

Unfavourable weather obviously influences railway traffic, and its prolonged continuance will temporarily depress the values of the shares. This effect is more pronounced in the light or passenger lines than in the heavy or goods lines, since in the former the trains must be prepared to start, and must start, whether the passengers be few or many, while in the latter the number of trains and trucks employed can be adjusted to the materials (according to the energy or feebleness of trade) which it can be reasonably ascertained are likely to be carried.

The depressing effect of strikes on the values of railway and industrial shares is readily apprehended.

Railway shares have been needlessly depreciated by reckless and inefficient management. In former days occurred the building of loop lines which practically led nowhere, carried no one, and produced nothing—the consequence of a mania for mere magnitude of area—and at the present date redundant trains are run in response to thoughtless competition, and needlessly luxurious travelling for a people which is losing the manliness and endurance of life. It appears from the latest returns that during the year 1906 the railway companies of the United Kingdom received in gross receipts (excluding steamboats) the sum of £49,883,000 under passenger traffic, and £58,394,000 in respect of goods, materials and live stock, or a total revenue of £108,277,000. The engineering expenses, strictly attributable to the conveyance of the traffic, amounted to £36,415,000, the traffic charges were £21,000,000, and the balance of cost consisted of miscellaneous items—the aggregate expenditure being £68,898,000. The working charge accordingly was upwards of $63\frac{3}{5}$ per cent of the receipts. Wanton competition and defective administration are largely responsible for this wasteful ratio.

Bonds and shares generally may be suddenly depressed without any assignable cause, and inquiry should precede alarm. When an estate which contains a large quantity of a particular stock must be distributed in consequence of the owner's death the sale of so much property in the market—especially where several events of the kind concur—is often sufficient to induce a heavy and unexpected fall. The dullness of rational people is frequently inexplicable: a sale in block in the instances mentioned acts against the interests of the beneficiaries themselves, and a gradual sale is quite as feasible and less harmful in results.

Insurance companies are usually (except life offices) large holders of Stock Exchange securities, and when an extensive conflagration occurs which demands a partial disposal for the immediate settlement of claims the act is registered in a temporary decline of values.

Expected legislation in a particular direction, especially if it

be prompted in the form of crude and ignorant socialist proposals—propounded either by people who never think intelligently and consecutively, or by those whose quest is gain without service, at another's expense and loss—naturally tends to a depreciation of prices, as indicating a decline of national good faith, the predominance of unnational and exclusive ends, or the pandering to unrighteous clamour.

NOTE.

The aggregate "Coal and Coke Bill" of the Railways in the United Kingdom amounted, in 1907, to upwards of $6\frac{1}{3}$ millions sterling.

CHAPTER XV

THE FALL IN THE PRICE OF CONSOLS, AND THE AMERICAN CRISIS IN 1907

THE preceding chapters may be instructively illustrated by a brief record of the variations in the value of Consols, and an examination of the trading and monetary disturbance in America which occurred in 1907. The illustration extends beyond its particular scope, since the factors whose action was evident are apparent more or less decisively in all stages of commercial troubles upon an extended scale.

I.—CONSOLS

With a view to the detection of the recurrent causes of variation in the price of Consols the following brief history will enable an induction to be made by observing the conditions which are usually or always attended by the same results.

In 1801 the harvest was seriously deficient, and owing to the loss of this source of wealth, savings were reduced; the diminished demand compared with the unchanged supply of stocks resulted in a fall of price from $65\frac{1}{2}$ in the preceding year to $55\frac{3}{4}$.

In 1802 the price rose to $69\frac{1}{8}$ as large imports of foreign wheat relieved the stringency of the former year.

The renewal of the war with France in 1803 entailed a considerable expenditure and borrowing by the Government, and the price, by the diversion of money from the market for investments, declined to $54\frac{1}{2}$.

In 1810 the prices of commodities generally showed a substantial rise, and excessive supplies of raw materials were attracted to manufacturing industries with a view to sharing in this increased profit. Money accordingly was almost exclusively devoted to carrying on the augmented trades, and

Consols, losing the support of buyers, gradually fell in price, descending to $56\frac{7}{8}$ in 1813.

In 1814 trade (which had been depressed in the former year) resumed its natural elasticity, as a rebound from inaction, and the position was brightened by the country's success in the war. The French were retreating from Russia, which thus became open to trading enterprise. Gloomy feelings gave way to exaltation and hope; these found expression in a development of trade, and Consols advanced to $70\frac{1}{2}$. But the Nemesis speedily arrived: overtrading (the stimulated manufacture of articles in excess of the genuine existing demand, and in the hope of that demand expanding), and the use of borrowed money in business, had been incited by the former activity of trade: the need for manufactured commodities decreased: losses were sustained in consequence of the high rate of interest required upon the borrowed capital, and the unsaleability of superfluous goods: firms failed: commercial confidence or credit hence became undermined, and Consols revealed the general disquiet in a fall to $65\frac{1}{4}$.

In 1818 peace was proclaimed: money no longer devoted to the waste of war returned to commercial channels: peace fostered trade into vigour: savings thus became possible and found their way partly to Consols, which consequently rose to $79\frac{3}{8}$.

But again in 1820 the reaction in trade, which inevitably and rhythmically follows a period of success, supervened: failure had been speedily forgotten: hope was always ready to be relit; industry grew inflated or hollow in its expansion; money was absorbed in the importation and manufacture of goods that were idly stored; credit received a shock from successive bankruptcies, and Consols fell to $67\frac{5}{8}$.

The harvest of 1822 proved abundant and provided a new fund of wealth for extended trade and enlarged investment; and an increased demand for Consols was shown in the rise of price to $80\frac{3}{8}$. A speculative mania thus ensued in 1823; securities were largely purchased on borrowed money in the expectation of a further ascent of price and profit; speculation, again, extended to subscriptions on a wide scale to foreign loans, and the importation of commodities from abroad. The

mania eventually terminated in the customary collapse, and the price of Consols fell to $73\frac{1}{8}$.

In 1825 a recovery of trade succeeded a previous depression; prosperity yielded a surplus of savings, and an excited rush to the market resulted in a response of higher values, Consols benefiting at the price of $93\frac{7}{8}$.

This brief and fragmentary history (which need not be pursued, as the features described recur with regularity) is instructive and mournful; its general interest is the instability of human character and conduct; and the insignificant influence of success and failure upon the cultivation and steadiness of modes of judgment. There is an important sense in which we may rightly affirm that failure should not persist in memory, or hopeful energy would be paralysed and progress arrested; but the melancholy lesson which the record enforces is the obliteration of failure in its genuine function as a beacon and guide to future acts. At the same time the reader here and there may acquire the command of his judgment in periods of perplexity by observing the punctual regularity with which depreciated values are succeeded by revival, and thus in his decisions become influenced by the steadying power of a sense of proportion.

The erratic course of Consols which has confused many minds, and has frequently been thoughtlessly accepted as a sign of decaying national credit, may be completely assigned to ascertained causes.

The reduction of the rate upon Consols a few years ago from 3 to $2\frac{1}{2}$ per cent has been regarded by competent financial authorities as a premature act. All vital changes demand a suitable environment and period for their sound and needlessly dislocating introduction. When the abrogation of the 3 per cent stock was made other nations followed suit by the issue of their loans at a reduced rate of interest, and the position was consequently the more pronounced by the less productive character of foreign markets of securities to British investors. A well-known financier recently estimated that, as the net result, the nation had lost more through this diminution in the rate on foreign investments than it had gained by the relief from the $\frac{1}{2}$ per cent. But as an index of national credit,

let us make a brief calculation, and for this purpose of comparison we regard Consols as perpetual annuities without the complication of redemption. When Consols stood at 3 per cent and the price was 103, a sum in proportion will show that the return per cent was £2 18*s*. 3*d*. Now to obtain the same rate of return when the stock carries interest at $2\frac{1}{2}$ per cent a similar calculation brings out a price of 85 to 86: so that 85 to 86 (or, more accurately, $85\frac{4}{5}$) at $2\frac{1}{2}$ is equivalent in standing to 103 at 3.

The national credit is not in want of repair; but the notion itself of measuring a nation's credit by the mere return afforded by its principal security is quite irrelevant. Its credit resides in its material resources; the enterprising and skilful character of its people; the volume and value of its trade at home and abroad; its command of all markets for the products of its industries; the free and elastic nature of its Government; and, controlling and influencing the whole scope of its activities, the honour and integrity of its mercantile and financial classes. A mass of speculative purchases enhances the value of Consols, and hence diminishes the return. Is this transient and capricious result a mark of augmented national credit at the time? Is it a sign of national discredit when people are enabled to abandon investment in Consols, and thus tend to induce a decline in value and a higher return, by the attraction of their savings to the superior profitableness of trading operations and the loans which they demand, which in themselves afford the sure index of the country's repute?

An excessive and disastrous additional cause of the recent fall was the idle destruction of capital in the Boer War. Strange though it be, wiseacres constantly forget that money cannot be wasted without less being left for investment purposes.

Dearness of money in general abstracted surpluses from Consols. Dearness of money implies increased trading activity, and offers the attraction of a more profitable employment of funds than Consols afford.

A contributory cause was created by the destruction produced by fire and earthquake at San Francisco, which compelled the sale of securities by insurance companies for that immediate settlement of claims for which they are renowned.

A great increase in our national expenditure has accounted for a deficiency of demand for investments, and the neglect of making adequate provision for the reduction of the National Debt tended in the same direction. It is evident that the extinction of debt is a diminution of the supply of stock, and consequently a gradual accession of value. A nation, like an individual, cannot concurrently expend lavishly and recklessly and yet save.

The multiplication of issues of Colonial and Municipal securities has materially absorbed savings which Consols and other investments would otherwise have attracted. And until the accumulations of the country overtake this augmented supply of desirable stocks the depreciation of older issues must continue to be felt. It has been estimated that since the passing of the Colonial Stock Act in 1900 (which authorised trustees to place their funds in specified Colonial securities) to the middle of 1907 the nominal amount of trustee investments, available to the public, has thereby been increased by nearly £300,000,000.

Reduced purchases in Consols have been made in recent years by the National Debt Commissioners on behalf of the Post Office Savings' Bank and of the trustee savings' banks and friendly societies, in consequence of excessive fluctuations in the value of the capital.

The destruction of property and capital during the Russo-Japanese war affected values by the withdrawal of money to those countries.

The substantial extent of newly created municipal corporation stocks of an attractive character should also be counted as one of the prominent factors acting against the inducements of Consols.

In 1890, again, a commercial crisis occurred; banks consequently fortified their position by unusual accumulations of cash, which was thus diverted from Consols and other securities, and by the sale of Consols and other investments.

It should finally be remembered that in former days an estate was supposed to gain in dignity if it comprised a substantial amount of Consols among its assets. This preferential choice has now succumbed to the smallness of the interest and the

inconvenient variations in the value of the capital. The effect on prices is obvious.

The inductive method of science—which discovers the uniformities of relation between certain conditions and certain other conditions (in other words, the causes of effects)—is applicable to the problem of investments. We are assured of a causal connection when a definite effect appears on the appearance of a given condition, or set of conditions, and is absent when that condition is removed. A consideration of the circumstances which have been related in respect of Consols (and the observations embrace securities of all descriptions) will enable the investor to form a code of rules which express the constancy of these connected conditions and results. And rules thus founded upon experience afford a power of forecast and thus a guide to action. And here, perhaps, a general remark may suitably be submitted—applicable equally to books of the scope of the present one as to treatises on political economy—that a financial exposition does not consider man in the completeness of his nature, but simply regards those qualities of his character which embody the desire for gain and station.

II.—The Crisis in America of 1907 as a Lesson

A period of severe commercial depression with resulting social misery and financial loss is fitly termed a crisis,[1] when we remember the significance of the word. For the general condition which it involves constitutes a judging or testing of the character of the causes by which it has been produced, and also the sentence which that condition itself has pronounced.

The excessively rapid development of the resources of America (premature in its relation to the genuine demand); the extensive profits which were consequently realised in manufactures, and the stimulated prosperity which seemed to possess no limit, tempted the influx of additional capital into this

[1] **Crisis**: Derived from the Greek κρίσις, a judgment, sentence, from a verb meaning to search into, to distinguish between good and bad; then to decide, and finally, as the result of inquiry and discrimination, to pass sentence: the conception is then transferred to signify a decisive stage in the progress of anything, a turning-point.

particular branch of industry in the hope of participating in its success. Owners of existing manufactories increased their plant, and the buoyancy of hope thus engendered spread beyond the manufacturing confines and incited speculation in all classes of securities.

When companies, also engaged in production and the distribution of the products, are thus securing considerable profits, the prices of their stocks and shares naturally advance as the result of the augmented dividends, and speculators alert for a yet more prosperous rise borrow the utmost capital they can command for purchases. The demand for money becomes more and more clamorous under competition, and the rate of interest ascends, to the profit of the lenders.

But the provision of money is not competent of indefinite supply. Paper documents or representative money may be manufactured in volumes, but the limit of expansion is measured sooner or later by the confidence in their convertibility into gold.

Lending institutions, for the integrity of their own obligations gradually grow alarmed—as these excited demands continue—about the disturbed equilibrium between their depleted reserves and congested liabilities. An attempt is made to diminish the pressure by advancing the rate of interest charged for loans, and fresh loans are ultimately refused and old ones called in.

With the exhaustion of the monetary source the definite premonitions of collapse accumulate. The machinery being arrested the work abruptly ends.

As part of the universal recklessness an enormous general speculation in commodities and securities had alike occurred, and railways and other undertakings grasped the chance afforded by the feverish temper of the nation, to create fresh and extensive issues of bonds resting upon no real accession of material security.

The collapse was eminently aided by the disclosure of discredit associated with life assurance and other institutions of trust, in the use of the fiduciary funds of these bodies for purposes and enterprises entirely alien from the objects which those institutions were established and trusted to promote.

We have noticed the submergence of sanity of intellect in

the rush for gain; we here perceive the easy way in which the same influence, inflamed by example and competition, can extinguish in corporate action the individual sense of honour. Under the stress of these conditions the general destruction of confidence in integrity and solvency became so complete that persons possessed of any funds began, and continued, to hoard by retaining them in secret hiding-places—preferring the risk of personal robbery to the larger chances of corporate misdeeds. Organised society thus became reduced for a time into the primitive form of isolated and repellent units.

The banks, it should have been mentioned, under the growing infection, had relinquished that caution and judgment in advances which constitute the primary function of a banker. Contrary to tradition and practice, they had been induced to lend extensively upon the mortgage of land-values and on the inflated stocks of industrial concerns (which simply represented fixed capital in place of the fluid assets appropriate to banking); hence, when the crisis was approaching its culmination, their securities, instead of being convertible into cash, were destitute of purchasers or only saleable at a ruinous loss.

An extended mischief arising in any country cannot be confined within local limits; so interdependent are the commercial relationships of all lands that tremors at any centre radiate their vibrations far beyond the area in which their origin began. By every possible means—the sale and pledging of securities issued by other Governments and owned in America, the discount of bills of exchange held by American merchants upon customers abroad, the cashing of credits upon London banks—gold was drawn from every money market for the restoration of confidence and the replenishment of the depleted currency of the United States.

For the general hoarding of metallic money practised in self-defence by owners had almost denuded American commerce and trade of the gold on which all exchanges ultimately rest. From the Bank of England accordingly an increasing supply was obtained by the modes described; the Bank's reserve thus being successively diminished, the apprehension of British merchants increased with each withdrawal lest their own representative money should completely lose its validity in the

destruction of its gold-foundation. The protective measure of advancing the bank rate of discount required to be applied, and upon British traders was imposed the grave impediment to enterprise which the necessity of borrowing and discounting at 7 per cent inflicts.

Thus do innocent nations suffer vicariously for the follies and sins of others. For—as the *Economist* newspaper (whose verdict was confirmed by eminent American authorities themselves) observed—this economic and financial crisis was essentially a moral one—not simply a result of mere recklessness and overtrading, but produced by the prevalence of a general and well-founded distrust in the methods and character of many of the commercial and financial magnates who had managed to attain to power, and dominated, for alien purposes, corporations, trust companies, and even banks, and diverted their operations from their professed and legitimate ends.

CHAPTER XVI

THE MODES OF ESTIMATING THE COST AND RETURN OF SECURITIES

It is here proposed to explain the mode in which the exact cost of a security can be determined apart from any fraction of interest which its price may include; the rate of return which is realised in proportion to the price which has been paid; the nature and effect of the symbols *x d.* and *x in.* when attached to market quotations, and the manner of computation, with the use, of sinking funds.

I.—Accrued Interest as affecting the Cost of Securities.

The explanation will be simplified if we regard the investor in his true position. When, for example, he has purchased stock from the nation (Government securities), or the debenture stock or shares of a railway, or the bonds of a municipal corporation, he is customarily termed the owner of the security. But his real position is that of a creditor of the Government, the railway company, or the corporation. When the Government, company, or corporation first borrowed money by issuing these acknowledgments of indebtedness, certain persons made the advances, and received certificates or bonds in exchange as evidence of the loans; one after another these securities passed by sale through a series of buyers, each of whom thus occupied the position and acquired the rights of the original lender, and the last purchaser at any moment becomes the actual creditor himself. What he possesses is a debt (based upon value) expressed in the bond or other document issued by the borrower and bearing interest. The loan means that the lender (or the successor in title of the original lender) has

surrendered in a particular direction the personal use of money which he might have employed in other modes; and, as the consideration for this specific use, the debtor undertakes to pay a certain rate of remuneration, or a share of the profits which the employment of this money earns. Until the debt is discharged the lenders possess in common the security of the resources of the country in the one case, the net annual revenue of the railway, or the revenue from the taxable land and buildings administered by the corporation.

As the use of the loan is continuous and uninterrupted in aiding to produce the revenues of the debtor—a daily use, so to speak—so is the growth of the interest which is paid upon it, since the exchange is one of exact quality. Interest, that is to say, accrues[1] or grows from day to day, or really from moment to moment. But as it would be impracticable to make a daily or even weekly payment of interest, the amount is, in practice, paid at longer specific times in each year of use, but, nevertheless, it is growing from instant to instant.

If, for example, the interest is payable on the 1st of January and the 1st of July, each payment is termed "Interest due and payable"; but if we take an intermediate point of time—say the 1st of April—we then have an amount of interest (at the specified rate) which has grown from the preceding 1st of January to the date in question (in this illustration the accrued amount would be that for one-quarter of a year); and this fractional (or proportional) portion of the half-yearly interest is termed "Interest accrued," and recognises the fact that interest does not suddenly occur at the settled dates of actual payment, but grows daily, though not discharged except at conventionally fixed times. If, however, the debt were redeemed between two periodical dates for payment of interest, the amount accrued to the time of repayment from the prior periodical date would be concurrently paid.

If the reader should examine the balance-sheet of a bank he will discover an example of what is really accrued interest.

[1] **Accrue**: derived apparently from an Old French word *acrewe*, meaning "that which grows up, to the profit of the owner, on the earth or in a wood"; it is used to translate the Latin *accrescere*, to grow larger.

He will find placed among the liabilities an item entitled "Rebate on bills not due." On the 30th of September, we will assume, the bank discounted a bill of exchange which one of its customers had drawn for £500 upon a solvent firm for goods delivered, and payable by the firm at the expiration of six months from that date. The process of discounting the bill is to credit the customer's account with its amount (£500), diminished by the interest for the currency or term of the bill at the prevailing rate—if, for example, the rate were 4 per cent the customer would be credited with £490. The bank's half-yearly balance-sheet is prepared on the 31st of December. If, then, in the distribution of its profits for that period the bank used up the entire six months' interest (or £10) which it had charged, the ensuing half-year's account would be improperly depleted of its portion of the discount (as a contribution to profits) for the period intervening between the 31st of December and the date when the bill matures. Hence the bank in respect of the half-year to the 31st of December credits itself only with the discount (or interest accrued) to that date (£5), and debits itself as a liability with the remainder (or £5) for the rest of the term.

Suppose, then, that a bond of £100 bearing interest at 3 per cent per annum, which is payable in half-yearly instalments on the 1st of January and July, is purchased on the 1st of April at the price of 90¾. This price, however, does not represent the value of the capital amount itself. For—omitting the consideration of extraneous circumstances which may affect the value of the bond, such as war, the extent of speculation, and many other circumstances—the value continuously increases after each payment of interest is made by the addition of the interest accruing. The interest for the half-year is £1 10*s.*; the proportion of this current interest from the date of the preceding payment to the time of purchase is one-half of £1 10*s.*, or 15*s.* (since three months have expired); hence the capital value alone of the bond is 90, or the actual cost of 90¾, diminished by the accrued interest. This accrued amount is paid by the buyer to the seller, but the former recovers it when he himself receives the ensuing periodical payment of interest. The price accordingly given in this

case by the investor consists partly of the value of the capital amount, and partly of interest which has grown. In other words, 90 should be entered in his capital account as the value of the investment, and 15*s*. in his interest account as a liability to be redeemed when the stated interest is next received.

This suggests a practical caution. When we compare, for purposes of buying and selling stocks, the return obtained from different classes of securities, in order to ascertain their relative dearness or cheapness—we must notice when the interest on each becomes periodically due (as some prices will include more accrued interest than others), and our decision of choice (so far as this point is concerned) will then proceed on a uniform basis of estimate.

II.—The Return derived from an Investment

The clearest and most conclusive exposition is frequently that which is not verbal (or what was termed by older writers, the rhetorical mode), but is presented in the form of concrete examples of actual instances.

A bond for £100, bearing interest at the rate of 3 per cent per annum and redeemable at par (that is, at the amount expressed in the bond as the debt) at the end of thirty years from its issue, is purchased for £95—the security thus, for various reasons adversely affecting its appreciation in the market, standing at a discount of 5 per cent. The return *per cent* which the buyer secures for each £95 so invested is obtained from the proportion: as £95 is to the £3 annually received, so is £100 to the actual return on the purchase money, which works out at about £3 3*s*. 2*d*. per cent. But at the end of the term of the currency of the bond the holder receives £100 for his £95, or a bonus of £5 in respect of each £100 of the bond. Assume that he bought it five years after its issue, so that the unexpired period is twenty-five years. Now £1 a year will (at, let us suppose, 3 per cent as a safe rate) accumulate to £36 9*s*. 2*d*. by the end of twenty-five years; hence by proportion 2*s*. 9*d*. per annum will accumulate to the £5 in question. In this aspect of the case the purchaser may be regarded as receiving, (1) the £3 a year of interest, and

(2) this additional annual sum of 2*s*. 9*d*., for this sum, as has been shown, is the yearly equivalent during the term of the extra amount to be actually received at the end. These two together amount to £3 2*s*. 9*d*. for the purchase price of £95, and reduced to a return per cent (as £100 is to the actual rate yielded, so is £95 to £3 2*s*. 9*d*.) the total return is ascertained to be £3 6*s*. per cent upon the money he has invested, instead of £3 3*s*. 2*d*. In this mode of considering the result of the investment it will be observed that the holder has taken into actual account the *annual* equivalent of his ultimate bonus, and must accordingly in this manner of survey remember that for the £95 expended (yielding him £3 6*s*.) he is only to regard the receipt of £95 upon redemption. He will as a fact obtain £100, but £5 of it has been used up in this mode of reckoning; in other words, this method of consideration gives him a final refund of the £95 he has actually invested, and an income meantime at the rate of £3 6*s*. per cent. per annum.

A clearer plan would be to suppose that he sold to some person the right to the bonus of £5. At 3 per cent., the present value he would receive would be £2 7*s*. 9*d*.; and laying out this sum in the purchase of an annuity enduring for the twenty-five years, he obtains each year the sum of 2*s*. 9*d*., as in the preceding calculation. The same result is thus arrived at. As previously computed, apart from the bonuses, the investor receives £3 3*s*. 2*d*. per cent.; adding the equivalent annuity in respect of the reversionary £5, or 2*s*. 9*d*., we obtain the complete return shown of £3 6*s*. Or he may regard his position in another way. He has invested £95; the sum of £5 is worth in present value £2 7*s*. 9*d*.: hence he will receive his capital of £95 intact when the bond is redeemed, and he also possesses a permanent additional capital of £2 7*s*. 9*d*., which he can apply to productive uses.

But assume that instead of buying the bond at a discount he purchased at a premium: let him give £105, where he loses £5 on each £100 of the bond on redemption. It is not likely that this price would be paid where the bond only bore a rate of 3 per cent. We accordingly presume that the rate attached is 3½ per cent. The bond is again assumed to be repayable on the expiration of twenty-five years from the date of purchase.

Proceeding as before, we have the proportion: as £105 is to $3\frac{1}{2}$, so is £100 to the return actually obtained as a percentage. The result is £3 6*s*. 8*d*. per cent. But a sinking fund must be established (or assumed to be established) for recouping the loss of the £5 at the end of the period. As £1 per annum will at 3 per cent compound interest (this rate being appropriate to the formation of such a fund) accumulate to £36 9*s*. 2*d*. in twenty-five years' time, an annual sum of 2*s*. 9*d*. is necessary to restore the extinguished £5. Hence for the £105 expended the investor receives £3 10*s*. in interest, and diminishing this income by the sinking fund provision, the net amount is £3 7*s*. 3*d*. Then as £105 is to £3 7*s*. 3*d*., so £100 is to the actual rate per cent realised, or £3 4*s*. 1*d*. Receiving the return of £3 4*s*. 1*d*. per cent, he also secures the full £105 when the bond is discharged, namely, £100 from the bond, and the £5 from the accumulated amount of the sinking fund.

Reference may be briefly made to certain foreign loans (which require, if they be selected, the exercise of special knowledge and judgment) which are redeemable by what is termed an accumulative sinking fund; that is to say, where the bonds are repayable annually by drawings by lot with a bonus, since they are usually issued at a discount and repayable at par. If an investor's bond be drawn for redemption at an early stage in the duration of the loan, he realises, it is evident, by his speedy receipt of the bonus a very substantial rate of interest on the investment, while if the drawing of his bond be deferred for a considerable time, the remunerative rate becomes less and less, though, of course, always higher than the rate of interest which the bonds bear. If he invested in a very large number of bonds, he might reasonably assume that his bonds would be drawn for repayment year by year (and thus be able to estimate the probable total realised rate) in the proportion which the aggregate amount of such bonds bore to the total amount of the loan.

But, as a rule, the investor who simply wishes for a sure and steady income in stable securities should exclude from his survey investments with this mode of redemption. A further practical objection lies in the fact that if the bond be drawn he is burdened with the cost and trouble of discovering a fresh

security; and although the compensation might be adequate where an early drawing ensued, the occurrence of a speedy redemption is, of course, entirely a matter of chance, which, in the case of a single bond or of a small holding, cannot be fixed otherwise than as an insecure question of probabilities.

III.—Ex Dividend (*x d.*) and Ex Interest (*x in.*)

It has already been mentioned that the symbols *x d.* or *x in.* will at periodical intervals be found attached to the quotation of prices in the official list; and as the subject is usually perplexing to the investor, and of some practical consequence (at all events in the way of preventing a disappointed expectation sometimes entertained) it is desirable to furnish an explicit explanation.

The expression *x d.*[1] and *x in.* (the reader remembering that a dividend is a return upon capital which may vary from time to time, while interest consists of a fixed uniform sum per cent) simply means that the sale or purchase of the stock so marked is exclusive of the dividend or interest, which has just been, or is about to be, declared (in the former case), or is just due, or is about to become due (in the second instance).

If a stock on sale carries with it the full current dividend or interest its price is stated to be *cum* (with) dividend or interest.

It seems reasonable at first sight that, if a person holds a stock at the time when a periodical dividend (the exposition throughout includes the case of interest) is declared, the right to that particular amount should not pass from him when the stock is sold. He seems, so to speak, to have earned it by holding to the date of its declaration, and its diversion to the purchaser would, on a first view, appear to inflict an injury upon the seller. But in obedience to the rules of the Stock Exchange (which form the undisputed authority upon the conditions of bargains) an investor may continue to retain the ownership of the stock some days after the declaration of a dividend and yet on selling he loses the title to its payment. If he sell before a stock is marked *x d.* the dividend becomes the property of the buyer, although that dividend had been

[1] "x" standing for *ex*, without.

declared prior to the transaction. If, on the other hand, an investor purchases a stock after it is quoted *x d.* the dividend will not belong to him even though it be paid subsequently to the purchase.

In order to show the need and equity (to both sides of the bargain) of the course pursued by the Stock Exchange some preliminary explanations are necessary.

It is the practice of companies that, when the accounts for any particular period have been completed and the profits ascertained, the directors declare or announce the rate of dividend which they are able to distribute, but this declaration does not become a final decision and operative until it has been confirmed by the subsequent meeting of the shareholders. [In one company with which I am acquainted the procedure is different, for when the directors have fixed the dividend their judgment is final, and the shareholders possess no power of modification.]

Where a fixed rate of interest is payable upon a stock (such as government or municipal securities and the debenture stocks of a railway) no declaration is needed, since the issuers of the stock are by contract bound to the payment of this rate under all circumstances.

Whether the periodical payment upon stocks and shares consists of dividend or interest, it is obvious that very considerable additional labour is entailed upon the staff and officers while the preparations for declaration and distribution are proceeding. In the case of banks and agents who manage the loans of the government or municipal corporations or colonial governments, as well as in the case of companies of all descriptions which have issued stocks and shares, it is first necessary to complete, balance, check and audit the accounts, to ascertain that the list of names of the recipients to whom the warrants (or cheques) for dividend or interest are to be sent is correct, and to prepare and sign the cheques themselves to the order of the persons entitled to the payments. In respect of companies there is entailed the further laborious duty of examining the income and expenditure of the period under review, of determining the requisite reserves to be retained for present and future liabilities, and of then settling the amount

of profits which may safely be distributed in the form of dividend.

It is evident, accordingly, that if transfers of stocks and shares were accepted and recorded by a company—in other words, if changes of ownership of the stocks and shares were registered in the books—during this interval of exceptional work, the chances also of occasional error would be gravely multiplied in the issue of the cheques. A cheque for dividend, for example, might have been signed in favour of the person whose name appeared on the register. A transfer is sent in: the first name has to be expunged from the books and the purchaser's name substituted; the cheque already drawn might fail inadvertently to be cancelled, and a fresh one prepared for the new owner. Hence it is the recognised and justified practice of companies to close (or shut, as it is sometimes called) the transfer registers against fresh entries while the process of balancing and preparation is proceeding. The consequence is, that the person whose name as owner of the stocks or shares appeared on the register before the books were thus closed remains on the register as the continuing owner while the closing of the books lasts, even although he has disposed of his holding during that interval. [For the new owner's title is not perfected by registration of the transfer until the books have been reopened.] The company thus virtually announces as regards this interval:—"As to the ownership of the present dividend just declared, or about to be declared, we express no judgment; we shall send the cheque to the person whose name was on our books as the owner when the books were closed, and while they remained closed for the settlement and payment of the dividend; he is the only person we can recognise, for we know nothing of any fresh transferee until his transfer is produced, and this cannot occur until our books are reopened; the settlement therefore of the question as to whom—the seller or the buyer—the amount of the cheque actually belongs, must be arranged elsewhere than by ourselves."

Here, then, the rule of the Stock Exchange applies for the purpose of preventing confusion and contention between the buyer and seller upon this point. Rule 91 (which for con-

venience I divide into two parts) prescribes (*a*) that government and corporation inscribed or registered securities are to be quoted ex dividend on the day after that on which the books close for the payment of the dividend, and (*b*) that securities deliverable by deed of transfer . . . [such as English railway debenture stocks and ordinary stocks and shares] are to be quoted as ex dividend on the account day following the date of the closing of the books for the payment of the dividend, or on the account day following the date on which the dividend may have been declared, provided the dividend be made payable to the holders then registered.

The account day on the Stock Exchange is that on which all bargains must be settled, and when accordingly the dividend in question must finally pass to the one side or the other; and since such dates must for general convenience be fixed at stated intervals, they cannot exactly coincide with the varying dates at which companies' books are closed. But it will be observed that the rule arranges as close a connection as is practicable between the time of marking a stock *x d.* or *x in.* and the time of the shutting of the books of different companies.

The working of the process is interesting. If a bond is to be redeemed at par (£100) in a few years' time and its price now stands at 99, the price will obviously rise gradually (assuming it is certain of repayment) as the date of redemption approaches, until it reaches the £100 as its limit of value. In the same way does the price of a stock increase between one payment of dividend or interest and the ensuing one—omitting here the consideration of any effect on value produced by favourable or unfavourable reports about the security. Let the rate of dividend or interest upon a stock be 3 per cent per annum, and let it be payable on the 20th of February and the 20th of August. After the dividend or interest due on the 20th of February had been discharged, assume that the value of the stock was 98—it being then of course quoted without the attachment of any dividend. Then its price must gradually grow from 98 by reason of the ensuing dividend it is earning, and at the middle date, or the 20th of May, the price will be 98 plus the accrued interest for a quarter of a year, or 15*s*.

(one-quarter of the £3), or the market price will be 98¾; and the growth continues, in the same way, to the date when the next payment of interest becomes due, when on such payment being effected the price descends to 98 by the removal of that amount. This successive increase may be properly termed *natural*, for it is accordant with the nature of man not to part with a benefit without receiving its full equivalent—that is to say, in the present case the price of the capital itself of the bond with the increment of value which the accruing interest has conferred. Assume, then, that the day before the books are closed the stock is sold, but the transfer is too late for registration, or that the stock is disposed of while the books remain closed. On the day of sale the price of the stock would be increased, as has been shown, by the increment of the accruing interest or dividend; further, the name of the vendor would continue as the owner on the books, as the reader has been told (until they were reopened), and the cheque for the interest or dividend would be forwarded to him; hence, if no interposing practice existed, he would receive the dividend or interest twice—first in the accrued amount, and secondly in the actual payment. Here, then, intervenes the rule of the Stock Exchange, and settles the ownership of the dividend declared or about to be paid. This rule defines the time, and marks that time by the attachment of the symbol against the quotation, when accordingly the price of the stock or shares on sales and purchases is fixed without the inclusion of the dividend or interest in question.

The procedure and its equity can be best exemplified by adopting an actual case with comments. The reader should compare the following events with the different dates furnished, and he will then obtain a full comprehension and rule adapted to *all* instances. I take the 3 per cent debenture stock of a leading railway—the London and North-Western.

1. The half-year's interest was due on the 15th of January, 1908: the transfer books of the company were closed from the 1st to the 15th of January, both inclusive: the dividend warrants were posted on the 14th of January (in order to reach the holders on the due date): the stock was marked *x d.* in the official list on the 16th of January; and the account day on

the Stock Exchange (following the rule already cited) fell on the 16th of January.

2. The stock is sold between the date of payment of the interest due in July 1907 and the 31st of December, 1907, inclusive—the day prior to the closing of the books—there thus being time to secure registration of the transfer before the closing, and the buyer's name substituted for the seller's. The purchaser would then receive the interest due on the 15th of January, as he would stand on the books as the owner when the accounts were prepared. The seller sustains no injury, since the price paid by the buyer contained the accrued interest from the 15th of July, 1907, or from the seller's date of purchase, to the date of sale—that is to say, his investment has yielded him the full return to the day when he disposed of it. If this passing of the interest from the vendor to the buyer were not effected, the current interest would be doubly received by the seller. When the purchaser obtains the interest on the 15th day of January he thus receives back in its amount the accrued interest which he had handed to the seller in the price, and interest also on his purchase-money from the time of his buying.

3. The stock is sold on the 31st of December, 1907, but there is no time to register the buyer's title in the company's books prior to their closing: the seller's name accordingly remains on the register as the owner, and the cheque for the interest due on the 15th of January is sent to him. But on its receipt he must transfer it to the buyer as the latter's due. The seller is not damaged, since in the price he obtained he secured all he was entitled to in this respect, namely, the interest which had accrued from the corresponding periodical payment (or from his own date of purchase) to the present day of sale—that increment of interest being contained in the price. The aspect of the case in relation to the buyer is the same as in the preceding section.

4. The stock is sold between the 1st and the 15th of January (both inclusive), and prior to the marking *x d.*, the seller's name being still on the books as owner (as explained): the cheque is received by him for the January interest, which, however, he must transmit to the buyer for the reason already

assigned. The buyer's relative position has been above expressed.

5. Then the day of marking the quotation *x d.* arrives—the 16th of January—on which day we will assume that the sale was effected; the seller having received the cheque for the January interest retains it; and the reason is that the price being fixed *x d.*, is thereby quoted at a lower amount, that is to say, the quotation is reduced by the amount of the interest; hence the seller obtains a reduced price, but properly keeps the interest for the half-year on his investment, and the buyer is uninjured, for he has thus paid an equivalently diminished price for the stock. The purchaser will then be entitled to the next half-year's interest due on the 15th of July.

6. And if the stock be sold after the 16th of January and prior to the next half-yearly period, when it is again marked *x d.*, the buyer secures the interest due on the 15th of July, the seller being indemnified by receiving in the price the accrued interest from the 15th of January to the date of sale.

With this explanation the justice of procedure in the two cases cited on an earlier page is readily recognised.

It will be noticed as the general principle that, if a sale occur prior to the date of the quotation *x d.*, the dividend or interest just declared or due, or about to be declared or to become due, is the property of the buyer—he having paid its full proportion to the seller in the price he gave, and would thus be paying it twice over if he himself did not receive the compensation of the current dividend or interest itself. The case, accordingly, may actually occur that the holder of a stock may attend the meeting of the company at which the dividend is declared; may exult in its favourable character; and yet, should he sell before the date of the *x d.* marking, the amount he has thus received must be disconsolately handed to the purchaser. The fairness of the practice and the equity of the rule must now be admitted; and a cause of unwarranted expectation is thus removed.

The date of the closing of a company's books depends upon convenience and other circumstances at the time, and accordingly varies; the date is intimated in the published report; but in the case of government and municipal securities no

public announcement is requisite, since the "shutting" of the books for the dividend occurs on fixed dates, and the quotation *x in.* is practically simultaneous with such closing. Thus in respect (for example) of Manchester Corporation stock—looking to the interest due on the 1st of February, 1908—the balance for that interest was "struck" at the close of business on the 1st of January, and all persons then registered at the Bank of England (the agents for the loan) as holders of the stock were entitled, so far as the Bank was concerned, to the February interest. Transfers effected *after* the 1st of January were made *x in.*, and the transferrer (or seller) would receive the payment. This, it will be perceived, accords with the preceding statements.

An illustration may also be furnished for Consols. The balances are struck for payment of the interest about four weeks before that amount becomes due, and the stock is subsequently transferred *x in.* up to the date when the interest is paid. For example: the balance was struck on the 2nd of March, 1908, in respect of the quarterly interest due on the 5th of April; the stock was marked *x in.* on the 3rd of March, and a sale on or after the 3rd of March would be without the interest payable on the 5th of April, or the seller would receive that interest—the buyer paying the lower price as reduced by its amount. The Rule of the Stock Exchange, accordingly, brings the market procedure into harmony with the regulations of the bank where the transfer books are kept.

It may be added that when a stock is quoted *x d.* or *x in.* the symbol is retained for a time in successive lists in order that the fact may not escape the notice of those who may take in the list only once a week. Thus Consols were marked *x in.* on the 3rd of March, 1908, and on each succeeding list until the 11th of March, inclusive.

An interesting point may now be noticed which applies generally. I take the case of Consols. A buyer of that stock on the 4th of March—the day after it was marked *x in.*—would receive no interest until the 5th of July (the second quarterly date of payment), and would apparently lose one month's interest on the capital he had invested, that is to say, from the time of purchase to the 5th of April (when the seller secures

the interest then due). But (1) the purchaser would not pay the price until the Account day, which at this period in 1908 was the 1st of April, and hence would retain his money at interest for this interval, and (2) as to the term of four days (the 1st to the 5th of April), if he sell what he had bought at the corresponding period in any subsequent quarter of any year (corresponding to the date, that is, on which he purchased), he obtains a quarter's interest, which affords the compensation. Thus, the ensuing Account day in Consols is the 1st of July, 1908; the stock is quoted *x d.* on the 2nd of June, and if he sell on (say) the 3rd of June he receives the price on the 1st of July and secures the interest due on the 5th of July; in other words, he then obtains three months' interest, while the period from the date of completion of the original purchase (the 1st of April) to the 1st of July is exactly the same term, so that no loss is incurred.

In the case of a company the Committee of the Stock Exchange fix the date of *x d.* on receiving an official intimation of the rate of dividend just declared, or about to be recommended to the shareholders for adoption.

Immediately after the quotation is marked *x d.* the ensuing dividend begins to accrue and to increase the price; that is to say, the dealings are made *cum* dividend so far as the subsequent dividend or interest is concerned; the price instantly is reduced when it is quoted *x d.*—no extraneous events affecting the value of the stock having meantime occurred—by the amount of the dividend or interest paid or shortly payable. Thus a stock bearing 3 per cent interest, payable half-yearly, stands at £150, we will assume (including the current six months' dividend): on the next day it is, say, quoted *x d*, and the price falls to 148½, being reduced by the half-year's dividend paid. If sold on the former day the seller obtains £150, but hands over the £1½ (the half-year's dividend) to the buyer, or if sold on the following day the vendor receives £148½ and retains the £1½; he is, accordingly, in precisely the same position (at the level of £150) in each case and sustains no loss. If there be no apprehension or unfavourable news in the market extrinsically affecting the stock individually, or affecting it in conjunction with other securities, the price of 148½ by simple efflux

of time gradually rises from the moment it is declared *x d.* by the accruing increment of the current interest, so that at the end of four months from that date it will stand at 149½, being the 148½, plus the accrued interest for the one-third of the year expired.

In describing the operation expressed by the symbols *x d.* and *x in.*, I have obviously been treating of stocks and shares—securities, that is to say, where the owner's name is registered (or inscribed) in the Books of a Company or Bank. For in the case of Bonds to Bearer (and the securities called Bonds are nearly always to *Bearer*), the coupons for interest attached thereto are paid, when due, to *any one* who lodges them with the Company or Bank for encashment, since the Company or Bank possess no Books in these instances which they can close for dividend purposes, seeing that, from the nature of the case, they are entirely unacquainted with the names of the persons to whom the Bonds belong—such Bonds to bearer being transferable by the simple handing of them from one person to another, and not by deed of transfer.

IV.—Sinking Funds: their Formation and Uses

I have already recorded the sound advice of a financial authority—that every investor, however substantial be his securities, and trustworthy the rate of interest which they yield, should appropriate a portion of the annual income as a sinking fund[1] for possible loss of capital during the course of his investments. Investments of successful issue will certainly, even with the most vigilant and competent exercise of judgment and caution, be interspersed with investments resulting in a loss or diminution of capital; and the maintenance of an average level of value in the whole range of the selected securities demands the appropriation of part of the proceeds of

[1] A fund, in its original literal sense, is a bottom, or foundation (Latin *fundus*); a banking fund, for example, is the foundation of its financial operations; the word thus acquired the sense of capital. Sinking is derived from sink, and one of its meanings is "to be reduced in value or extent"; hence, a sinking fund is a fund or capital devoted to the gradual sinking or reduction and extinction of any debt.

prosperous ventures to the formation of a sinking fund, or a reserve.

A sinking fund, in the ordinary form, is not generally feasible for an ordinary investor of moderate means, if only on the ground that the continuous reinvestment of small sums at compound interest cannot usually be attempted with success; but a sinking fund in the form of a reserve—applicable to the retrieval of losses—should be the practice of a prudent man.

It will be of interest to describe the customary nature and process of what are termed sinking funds proper. A sinking fund consists of a yearly (or other periodical) sum set apart and invested at compound interest (with the reinvestment of each payment of interest as it is received) for the purpose of recouping any loss of money which may occur, or with the object of providing the means for discharging a specific pecuniary obligation which may have been accepted. A few examples will show the operation of the process.

1. A security is purchased on the Stock Exchange which is redeemable at the end of thirty years (from the date of purchase) at par; that is, at the nominal capital-value which it expresses—usually £100 or some multiple of £100. Owing to favourable circumstances affecting the security and its prospects at the time of purchase, the security is in great demand, and the investor pays a price of £104, or he purchases at a premium of 4 per cent. Since the bond will be redeemed or paid off at £100 only, provision should be made for the certain loss of the £4. Every sinking fund should be calculated at such a rate of interest as may, after allowance for income tax, depreciations of value, or actual losses on the securities in which its instalments are invested, be expected with reasonable confidence to be continuously realised throughout the duration of the period for which the service of the fund is required. This selection of the rate depends upon the sagacity and closeness of our predictions of the probable future course of the money market, and the influences by which it is affected, based upon a survey of the experience of the past. But, in any event, the rate chosen for the accumulation of the fund should be low, and the securities in which its instalments are invested, and in which the interest derived from the investments of past instalments

are reinvested, should be of the soundest and most stable character.

This condition in itself implies a low rate of accumulating interest. It is obvious that where the term over which the sinking fund is to extend is short, a comparatively higher rate of interest may be legitimately adopted than can be prudently assumed when the period is a lengthy one, and accordingly comprises a greater number of possibilities of fluctuation of values. Foresight is more competent to a brief than to a prolonged range of vision. In the case now under consideration let us assume that a clear rate of 3 per cent may be depended upon as safe. Apart from adverse variations in the values of the securities selected for the investment of the instalments, and looking simply for illustration to the element of income tax, the adoption of 3 per cent implies a realised rate of about £3 3*s.* 2*d.* per cent, since £3 3*s.* 2*d.* reduced by an income tax at 1*s.* produces the required 3 per cent. From a book of tables of compound interest we perceive that, at 3 per cent, an annual sum of £1 will accumulate to £47 11*s.* 6*d.* by the end of thirty years, so that by proportion, the sinking fund for restoration of the premium of £4 per cent will be about 1*s.* 8*d.* This result, as has been stated, demands that at least £3 3*s.* 2*d.* per cent is realised throughout upon the investment of each instalment of the sinking fund and upon the reinvestment of the interest obtained thereon. Hence, from the interest derived from the bond, the yearly sum of 1*s.* 8*d.* should be set aside and invested in respect of each £100 which the bond expresses. The security is thus rendered complete and exempt from loss, since £100 will be received on repayment of the bond, and the balance of the purchase money (or the £4 per cent) will be provided by the accumulated amount of the sinking fund.

2. A leasehold property may be purchased for £1000, and the unexpired leasehold period may consist of sixty years. At the end of that time the property reverts absolutely to the ownership of the freeholder or his assigns, and unless an adequate sinking fund has been maintained, the loss of capital to the leaseholder is final. Proceeding in the same way as before, an annual sum of £6 2*s.* 8*d.* appropriated from the income will provide the restoration of the purchase-money.

In such a case it should also be remembered that the freeholder is entitled to require that the ultimate lessee should relinquish the premises in a reasonable condition of repair, which, where the buildings are old, involves a considerable expenditure, notwithstanding the repairs which have been necessary from time to time. The mode of meeting this concluding cost is furnished by a sinking fund.

3. In all instances of what are termed "wasting" securities —securities which simply grow exhausted as time proceeds and leave at the end no capital value behind—such as, for example, besides leaseholds, securities which endure for a specific period and then finally cease, like terminable annuities and annuities upon lives—a sufficient sinking fund constitutes an essential element of a prudent purchase. In the case of life annuities which may be bought, the annual premium for an assurance on the nominee's life for the purchase money forms the sinking fund required. In the instances cited the holder may, at some time, dispose of his investment and no longer need the protection of the sinking fund he has created. No loss, however, will be occasioned; when he sells the bond or leasehold, the price he will obtain will be inferior to that which he paid, since the security will be nearer to the point when the premium will disappear or the leasehold terminate; but this diminution of price, if the transaction has been prudently managed, will be fully compensated by the accumulated amount to which the sinking fund has then attained.

4. It might have been mentioned that a person may have engaged to make a specific payment at a definite future date. It might entail considerable inconvenience and strain if the means for discharging that obligation had to be raised in one sum when the obligation became enforceable, and this difficulty would be averted by the construction of a sinking fund. In forming a sinking fund accordingly the following considerations must be borne in mind—

1. The annual (or other periodic) instalments which constitute the fund should be invested in securities which may be reasonably considered to be fairly stable in their values (judged from previous records of prices over an adequate time), with variations on the whole of minor extent.

2. It is obvious that no investment of the successive instalments should be made in securities at a premium, since if this rule were not observed we should require a sinking fund within a sinking fund. Nor, again, for the same reason must "wasting" securities be selected.

3. The rate of interest at which the fund is created should be a low one, say, at present, 3 to $3\frac{1}{4}$ per cent, and if, for example, the rate of $3\frac{1}{4}$ be chosen, the rate actually realised throughout the duration of the term—if we regard income tax at 1*s*. alone without contemplation of possible depreciations or losses—should be £3 8*s*. 5*d*. per cent. Hence 3 per cent net over a lengthened period appears to be the highest suitable rate. Ordinary shares in companies are not, as a rule, appropriate as investments on account of the fluctuations in the dividends due to trading vicissitudes and speculation. Securities bearing a fixed rate of interest form the preferable choice.

4. The interest, as it is periodically received upon the several investments, must at once (or as promptly as possible) be similarly reinvested at the same rate, so that compound interest—which is of the essence of the process—may be secured. Now in most instances some delay will occur in these reinvestments, and this consideration confirms the condition that the rate on which the fund is based should be low, so that any higher rate obtained at any time may compensate for loss of interest while fresh investments are being arranged.

5. It is a most important caution to enforce that the sinking fund should never be invested in the business which it is intended to protect. In commercial and financial institutions the reserve fund (which corresponds in its functions to a sinking fund) should never be accumulated by being employed in the transactions of the business they conduct. For, obviously, the fund will then be subjected to the vicissitudes to which that business is liable, and the very object of the fund—the restoration of losses which may be experienced in the management of the institutions—may thus be wholly or largely defeated. This proposition is fundamental. (I have already insisted upon this condition; but the question merits emphasis.)

6. A final condition admonishes us that under no circumstances should a sinking fund, or any portion of it, be diverted from its express purpose either by utilisation for alien needs, however urgent, or by intermission of the devotion of the regular and necessary instalments to the design in view.

Where it is difficult or impracticable for the investor to create a sinking fund himself, this duty can be assigned to an assurance company, whose continual practice and facility of investing enable it to afford the investor the benefit of genuine compound interest.

The sinking funds adopted for the reduction of our National Debt exhibit a somewhat different form and are worth a brief recital. Their nature and object are of course identical with those of a sinking fund constructed in the customary way. Beyond the mournful statement that our egregious debt is virtually the accumulated cost of war, nothing further needs here to be added upon its origin and history. Originally it was the practice of the Government to pledge specific taxes as the security for payment of interest, and the redemption of principal in respect of borrowed moneys. Thus, in 1692, when new duties on beer and other liquors were imposed, it was ordered that the receipts from those duties should be retained in a separate account as an express and hypothecated fund or security for raising a loan. But Governments in periods of stress often act like other spendthrifts, and become as careless of engagements as the prodigal: the notion of repayment speedily vanished, interest alone being provided—and the principal was treated as a permanent liability. A more scrupulous attention, however, gradually arose to the interests of the nation, for nations, like parents, should act as trustees for their progeny—particularly where the material sources of revenue, from natural exhaustion, become slowly reduced.

In 1723 Sir Robert Walpole established a sinking fund in the form of allotting a sum of money every year derived from the national revenue, and accumulating it at compound interest; and thus, when the fund had attained to the dimension of the debt, an instantaneous redemption would occur, and fund and debt be simultaneously extinguished.

The adoption of this particular form was open to two objections: (1) it was a cumbrous and indirect method, for the sums appropriated annually could be more conveniently applied at once in the extinction of portions of the debt by purchase in the market; and (2) an accumulating fund of any dimension provided an enormous temptation to an impecunious or distressed Government to divert it to the satisfaction of any urgent financial difficulties in which they might be involved.

The stupidity of arrangements of this description becoming recognised in time, a sounder plan was pursued, and our existing Sinking Fund now consists mainly of three parts, namely (*a*) any actually realised surplus upon each year's national account of income and expenditure. This is termed the Old Sinking Fund. When a surplus exists the amount is paid to the Commissioners of the National Debt, who (through their stockbroker) apply it in the immediate purchase and consequent cancelment of its equivalent Government stock.

The process may be briefly explained. In introducing the Budget[1] in any year the Chancellor of the Exchequer submits an *estimate* (based upon the financial experience of past years in each department of national income and charge) of the revenue and expenditure for the ensuing year. If the former be thus expected to exceed the latter—that is, if a surplus be anticipated—remissions of taxation may be allowed; while if the latter be calculated to prove the greater, fresh taxation may be requisite to supply the deficiency. But this surplus, if one be shown, is a mere estimate—the expected income and expenditure forms the basis for the provision by Parliament of the probable demands of the succeeding year. We are not concerned with it in connection with the Sinking Fund. But at the same time the Chancellor recalls the corresponding estimate which he submitted in his previous Budget of the income and expenditure for the year just *closed*, and compares that estimate with the revenue which has been *actually*

[1] **Budget**: a diminutive form of the French *bouge*, a wallet or pouch; the bag in which the national money is supposed to be kept. In former days, the Chancellor of the Exchequer, when submitting his annual statement, was officially said "to *open* his budget."

received during the past year and the expenditure which has been *actually* incurred during its currency. If the former exceed the latter, the difference is an actually realised or *existing* surplus, and must by Act of Parliament be at once devoted to the diminution of debt.

(*b*) There is in addition what is termed the New Sinking Fund, started in 1875, and sometimes named the Fixed Debt Charge. A definite amount is annually set aside (at present £28,000,000 a year) as a provision for payment of the interest upon the debt and for redemption. As the debt is gradually cancelled by that portion of the Fund which remains after the interest for each year is discharged, the interest portion successively becomes less, and, since the £28,000,000 is a constant sum, the yearly balance applicable to reduction continuously increases. It was stated when the Budget was introduced in May 1908, that the £28,000,000 then represented the sum of nearly £10,000,000 appropriable to the cancelment of debt, the balance of £18,000,000 being absorbed in the payment of interest upon its existing capital-amount.

(*c*) We need only refer to a third mode of reduction, which consists in the substitution of terminable annuities for annuities payable in perpetuity. Our National Debt is virtually the representative of a perpetual annuity; a power of repayment is reserved, but, in all probability, if that power were exercised the operation would assume the form not of the redemption of the capital, but of a future diminution in the rate of interest. I purpose in illustration to deal here only with terminable annuities in the shape of annuities granted during the lifetime of specified persons. A lady aged sixty-five (for these annuities are chiefly purchased on the lives of women) possesses £500 of Consols. She prefers to receive an assured income of larger amount than the $2\frac{1}{2}$ per cent, and equally well secured; she is willing, therefore, to barter her stock for an annuity which terminates at her death. She accordingly transfers to the National Debt Commissioners at the National Debt Office her holding of stock at (say) the price of $85\frac{15}{16}$ (the value at the time of writing); that is to say, she hands over a security worth in money £429 13*s*. 9*d*. In exchange she is granted an annuity during her lifetime (according to the Government tables) of

£40 18*s.* 4*d.* The Government thus is released from the annual payment of $2\frac{1}{2}$ per cent on the £500 or £12 10*s.*, and from the liability of redemption, and pays instead a sum of £40 18*s.* 4*d.*, limited to the lifetime of the lady—the average duration of life and of the payment (taking females of age sixty-five one with another) being about thirteen years only.

CHAPTER XVII

SPECULATION AND GAMBLING

An almost infinitely vast number of erroneous and misleading judgments (involving consequently a moral misdemeanour and unrighteous expression in many instances of application) is produced by the employment of language which is obscure and indefinite in its sense. This common error is prominent in the present age of slovenly speech, its correlative confusion of thought, and a deficient sense of responsibility. Nicety in the use of words is the mark of careful discriminations of thought. But this is rarely attained; the average mind finds its greater ease in condemnation in the gross, without the exercise of that incumbent judicial care which notes the distinctions that form the just and balanced judgment. And the corollary may be added that the vast majority of false conclusions reached by inference rest, not so much in any defect of the formal logic pursued, as on the shifting and inconsistent meaning of the term employed which forms the middle or connecting term in the inferential act.

No word is more loosely used than the term speculation; and it may fairly be asserted that in most minds—minds unaccustomed to the rigorous employment of language under the stress of responsibility—speculation and gambling are treated as synonyms. As the subject is a portion of the search for truth, a few observations are obviously appropriate to the scope of this book. The use of relevant words, particularly on grave occasions—and what occasion may not be rendered grave by the adoption of misleading terms?—is no less a demand upon the intellect for clearness, than a claim upon the conscience for fitting selection.

Etymology [1] is of minor service, as I have said, in determining correct definitions; it furnishes the origin and purpose of a term as a necessity of nomenclature when some verbal distinction was required to mark a new event, or a novel procedure, or a fresh want, or a shade of difference which a general cognate word did not sufficiently express; thus confusion and carelessness of usage compel us to settle definitions by an analysis, comparison and induction of actual applications.

I now consider the common view—stupid though it be—which merges speculation and gambling into one meaning, and that meaning associated with the hazards of dice and cards. The three terms—investment, speculation and gambling—concur in their relation to the future, and the greater or less degree of uncertainty which is sometimes spoken of as chance.

So far, then, no distinction exists. When the ordinary investor purchases shares in a railway company he is, from the nature of the case, speculating (weighing future chances) upon the prospects of the line (to be revealed in future dividends and prices); upon (consequently) the course of trade on whose prosperity the dividends of the railway depend; and (perhaps) upon the possibility of an adverse position by some invention which may introduce electrical traction in an adaptable form. He naturally would refrain from buying unless he judged that the probabilities of a maintained or improved condition were superior to those of an adverse character. His distinctive position, of course, is that of one who seeks a permanent source of income: not a mere series of purchases and sales undertaken solely for the purpose of snatching successive profits. But the investment is still of the nature of a speculation in future issues.

The tradesman speculates (on the basis of experience, but still with unknown elements entering into his decision) when

[1] **Speculation**: Latin *speculari*, to watch, spy out, derived from *specula*, a watch-tower. In *Macbeth* (Act III. sc. iv.) the word has the fuller meaning of the mental intelligence whose medium is the eye (and so in Stanza lvii. of *In Memoriam*). **Gambling**, the verb, has not been discovered in literature until about 1775 to 1786; the apparent derivatives gamble and gambling occur earlier, and in the eighteenth century were regarded as slang. The origin appears to be the Old English *gamenian*, to sport or play, from *gamen*, a game.

he purchases his stock of goods; he speculates upon the probable needs and tastes (their kind and amount) of his future customers, in regulating the extent and nature of the goods he shall buy; and if he considers that the prices of the commodities in which he deals are likely to increase, he probably supplies himself with a larger quantity than would otherwise be his practice, in the hope of profiting by the anticipated rise. This speculation is perfectly legitimate, and forms the reasonable reward, as compared with his rivals who may not similarly act, of wider and more competent observation which he has trained himself to exercise, and of greater foresight and courage of enterprise. By employing his special knowledge, which he has been careful to enlarge and refine, and laying in a larger stock than usual, he is distinctly speculating (not on mere chance, however, but on a weighing of chances), upon an increase in values and consequent profit, while he is also liable, if adverse events occur, to sustain a heavier loss. Here, then, definitely appears the element of speculation in the future; but what sane and just man can, even in the faintest degree, associate the venture with gambling?

Consider, further, the position of a manufacturer whose business is the conversion of raw materials into finished products. Let this manufacturer be a type of the honourable and energetic men of enterprise who have always formed the justified boast of England. If, utilising his ripened experience and judgment, he can purchase his materials—cotton, wool, or iron—at a reduced price, the completed goods can be manufactured at a diminished cost, and thus command a readier and wider sale—appealing, as they will do, by their cheapness to a larger market. The supply of materials which he buys will be greater or more restricted according to his practised estimate of future prices (or speculative forecast of the future), and if he feel reasonably assured, on a careful computation of the prospects, that prices will advance, he obviously contracts more extensive purchases than he would have done had this anticipation not been suggested by his specialised skill. Should values increase he realises a superior rate of profit than do his competitors, who, gifted with less natural and acquired acumen, simply laid in a sufficient stock for ordinary demands, and are

thus compelled to procure their additional supplies at the augmented cost. This, again, is legitimate speculation, and in no conceivable mode is it allied to gambling. Nor, it may be added parenthetically, does the element of personal gain assist the definition of the boundaries, since the investor, equally with the most inordinate buyer and seller, is actuated by the desire and aim of profit.

I proceed now to the consideration of the jobber or dealer. He quotes a buying and selling price, and the price depends upon his estimate of the probability of adjusting his account by selling what he has purchased or buying what he has sold, and effecting this at a profit. This, again, is an act of speculative dealing with the future. What would be the condition of the investing public were the functions of the jobber abolished? For in the existence of the jobbers, and the competition between their quotations, the public not simply possess an authoritative and constant standard of prices to guide their decisions, but also the additional distinctive advantage is conferred upon them of a readier and freer market for their transactions, and the completion of purchases and sales at better and closer prices. A person wishes to buy or dispose of a railway stock. Consider the time wastefully consumed, the energy spent, the anxiety experienced if speedy action were requisite, the grave hindrance to dealings in the stocks of our various undertakings, the impediment to the rapidity and certainty of general business, had the intending seller or buyer to make a casual and precarious search among friends, acquaintances and the public generally, until he had discovered a person who desired to purchase the precise security of which he himself was anxious to dispose. But the presence of the jobber completely obviates this difficulty, and provides a prompt and permanent market for all. And, as it has been remarked, the jobber, from the nature of his business, and by reason of the serviceable function which he performs to the public benefit, must—to use the common term—engage in speculation. He must measure the chances of the future in respect of the probability of hereafter purchasing the stock he has sold, or disposing of the stock he has bought. But it is objected that the jobber, when he enters into a contract of sale, does not actually possess

the stock he has engaged to deliver. If this retort involved even the feeblest validity, the merchant in any description of goods might abandon his business at once, since certainly he does not, when contracting, possess in a warehouse the entire stock of commodities which he has pledged himself to sell. His bargain is founded upon his sagacious foresight of the probability of acquiring the goods elsewhere at a profit when the time for delivery arrives.

It has been pointed out—indeed it must be universally admitted even by the most censorious critics—that all trading, whether in commerce, financial business, or in stocks and shares, is essentially and necessarily speculative, more or less, in forming a prevision of the future course of events and basing judgment and decision, not so much upon the present aspect and conditions of the commodities dealt in (though of course these facts enter into the calculation as part of the data) as upon their probable conditions in the future, and the fluctuations of quantity and value to which they may become liable.

Examine, then, the proceedings of the person who is *par excellence* termed the speculator—in the form of bull or bear—whether he be a member of the House or one of the general public. If it be urged that his operations are to be condemned on the ground that they constitute the business or habitual occupation of his life, the reply is obvious that the most scrupulous merchant is equally engaged in his affairs as the employment of his life, and that the conduct, whether successful or unfortunate, of those affairs hinges on the justness or inexactitude of his measurements of future events and contingencies—both in respect of the chances of their occurrence, and their extent and direction when they occur.

This view accordingly affords us no evidence in the slightest degree of the precipitate confusion of speculation with gambling. The professed speculator deals with the future, so do we all in every act: he is impelled by the desire for profit, and who is exempt? He employs his alertness of intellect, steadiness of courage, and vigilant resource in his operations, and I have not yet discovered the censor who can impugn the integrity of reward for this activity and use of power. But what he gains another loses: equally what he loses another

acquires; and when, for example, he is what is termed a speculator for the rise, and prices of a particular stock ascend, the public who then secure a propitious opportunity for selling participate in the success; while if he be a speculator for the fall, the watchful public again possess the chance of a profitable purchase. And all gains in business generally—the most cautious and legitimate—might be equally denounced, since a financial success to one implies a diminished success, at all events, to others.

Let us judicially discriminate. Assume that some common article of food falls considerably in price as the effect of some passing cause. Speculators would at once purchase large quantities and retain them in anticipation of a revival of value. Hence, in consequence of this reduction of supply (in proportion to the demand), the price would be maintained at a higher level than would have occurred had speculators been absent, and numberless persons (quite apart from the speculators) who would have suffered heavily by the uncontrolled decline of value are thus protected. In a similar manner, the price of another article of food may be temporarily forced to a greatly enhanced and abnormal value: speculators would then be tempted to sell in the expectation of a fall of price succeeding, and making a subsequent purchase at an advantageous rate.

Now if it be desirable—as it undoubtedly is for the public convenience—that a reasonable and fairly uniform price for all commodities—as a stable basis of purchase and disposal—should generally prevail rather than extravagant dearness at one time and an inordinate cheapness at another (so that in the latter event it becomes hardly worth while to produce), it would seem that sound reason can be urged in the public service for speculative operations which thus control the excessive upward or downward motion, and retain prices at a level, on the whole, upon which consumers may reasonably depend in regulating the extent of the provision they should make for their needs.

In this mode, also, extreme inflation and depression in the values of Stock Exchange securities are counteracted by speculative bargains in the one direction and the other, with resulting advantage to the public, on the whole, in the maintenance of a reasonably stable level of values. Specula-

tion of this description is allied to the nature of legitimate and beneficial transactions.

It has already been pointed out that the rules of the Stock Exchange contemplate real bargains: each seller or buyer is under the obligation to compel delivery of the securities in the one case or payment of the price in the other; and if the bargain be continued from one account to the ensuing account, the process is based upon fresh contracts contrary in nature to those for which they are substituted.

But the system of *time* bargains possesses a character of a totally opposite description—the system which consists of a contract between two persons for the transfer from one to the other of a certain quantity of a commodity or security at a *fixed* price, and on a specified future date, or within a definite period of time. A little discrimination is necessary. When a jobber or speculator buys or sells he equally forecasts the future, but his forecast is the reasonable application of the doctrine of probabilities. He contemplates and calculates a probable general rise or decline of values above or below the price he has quoted or contracted; he does not enter into a calculation (which would be impracticable) of an advance or fall to a final decimal. But he who effects a time bargain does not consider a range of future values with a fair limit of divergence, in accordance with the custom of the jobber and speculator: he fixes upon a specific definite price. This, obviously, is not a reasonable or practicable computation; the probability of that exact value being attained is unity divided by the numberless multiplicity of different prices which the commodity or stock can show; and the more extensively and continuously its value can vary, the larger becomes the denominator of the fraction which represents the value of the chance, and the smaller, consequently, is the fraction itself. Hence this practically vanishing fraction differs so slightly from mere guess-work that a separation between the two cannot be assigned. It is, therefore, a pure guess, and may, not unjustly, be stigmatised as gambling. Moreover, time bargains are not associated with any system of counteracting extravagant depressions of values, or restraining abnormal excesses of prices, that tends to a resulting uniformity of values which proves advantageous to

the investing community. This course involves, then, no general public service, and censure is the only criticism.

It will thus be perceived that the boundary between speculation (tending to the common benefit) and gambling is exceedingly difficult to define, and the line which speculation surpasses and thus merges into gambling is almost impossible to trace.

But a line does exist which each must detect for himself in the personal decision whether his operations shall include (as we have described) an accompanying public benefit, or whether his dealings shall conduce to public disadvantage and the personal degradation of character. The pestilent and degenerate practice of gambling is obnoxious to language of detestation to which no bounds can be assigned. The gambler, into whatever affairs of business he may intrude his baneful presence, is he who speculates without resources adequate to the honourable satisfaction of the losses he may incur; who deliberately, therefore, starts with the intention of entailing these losses upon others; whose gains involve an exclusively personal benefit, but whose failures exclusively signify another's harm; who possesses no conception of, or belief in, that debt of responsibility which every man owes to his neighbour; whose operations embrace in their result no service to the general good; whose notion of dealing is simply that of dice-throwing in disguise, without the exercise of forethought or restraint of reason, and devoid of any fragments of the consciousness of public obligation; and whose character and capacity, in place of being braced and invigorated by the changes and chances of the vicissitudes of his activities, lapse more and more profoundly into moral decrepitude and decay.

CHAPTER XVIII

INDEX NUMBERS

COMPARISONS of present events with similar events in the past necessarily form a doctrinal part of all departments of inquiry in order to mark progress, stationariness or retrogression, and causation. We thus ascertain the course of population; the direction and relative volume of commerce; and the changes manifested in the various modes in which the material and moral development of men, and communities, is expressed. Comparative statistics are thus a fundamental element of all history. In the instances just cited the process is reasonably simple and direct; but in determining the related variations in the prices of commodities which constitute a nation's aggregate consumption—commodities of different descriptions, of (generally) unconnected values, and of varied degrees of necessity or importance and of consequent demand—the difficulty arises of so selecting the materials employed in the survey as to exhibit a fair representation of the general consumption, and so devising a method of comparison as to afford a trustworthy index of real advance or decline. Remarks upon these points will be offered as we proceed. Our object comprises (1) the relation between the prices of any commodity at different dates; (2) that between the average prices of a group of similar commodities in any year and the prices prevailing in any anterior or subsequent year; (3) the relation between the aggregate prices of the whole of the prominent and permanent commodities included in national consumption and use, and the corresponding aggregate of prices in other years; but especially (4) it is important to select a representative and typical scale of prices of all commodities—single, grouped, and collective—and thus possess

the means of comparing with this defined standard the prices existing in individual periods. We are thus enabled to ascertain upon a uniform and consistent basis—if the standard has been suitably chosen—the proportionate advance or fall of prices which are current from time to time, as the sign of the altered cost of living, the varied rate of expense and profit of manufactures as dependent on the raw material employed, and, generally, the heavier or diminished burden of expenditure imposed upon the country whose fortunes we are gauging in this particular form.

The primary conditions of this system of comparison consist, as we have observed, of (1) the adoption of such a standard or criterion—with which the prices of any year can be brought into relation—as shall, both in respect of its composition and range, form as closely as possible a general and genuine type of the vicissitudes of variation to which prices are usually and recurrently subject. This condition will be considered when describing the standards selected in practice. The construction (2) of a method of measuring prices with those of the standard period, which shall be simple, facile of application, and—since any scheme of assessment must, from the nature of the case, be approximate only—reasonably trustworthy as an index of change.

We propose, first of all, to treat of the measure of comparison; and, as an introduction to the character and facility of Index Numbers, the results of a crude plan of measurement may be considered. In the second column of the appended Table I have inserted the average prices of three articles which Mr. Sauerbeck has furnished in his standard scale[1]—being the average prices of these commodities which prevailed during the period from 1867 to 1877, both inclusive; and in the third column I have, for illustration, adopted their prices during a subsequent year according to the ratios provided by another writer—

[1] I particularly draw attention to Mr. Sauerbeck's annual papers in the *Journal of the Statistical Society*—especially that of 1886.

TABLE I

Nature of the commodity.	Averages prices for 1867–77.	Average prices in another year under examination.
	d.	*d.*
Middling Cotton per lb. .	9	7·88
Congou Tea per lb. . .	11¼	10·45
Wallsend Coal per ton . .	264	271·33
Totals	284¼	289·66

Here it will be observed (1) that two commodities show a fall, while the third has increased in price; (2) a common denomination of value (pence) is adopted, but (3) Coal, as regards quantity, is quoted per ton, while the quotations in the other cases are per lb., so that notwithstanding the disparity of mass the whole three are treated as being on the same level of importance in the result; and (4) Coal predominates in the production of the combined effect. Hence, if we pursue this crude plan of using the arithmetical sum of the prices as the criterion, we find that in the year under investigation the average price of the collection has increased by about 2 per cent, notwithstanding the decline of two important articles out of the three.

But let us now reduce all commodities to a common denomination of quantity also, in order to obtain a parity of comparison —the ton of Coal being converted into 2240 lbs.: the following Table then results—

TABLE II

Nature of the commodity.	Average prices for 1867–77.	Average prices in another year under examination.
Each per 1 lb.	*d.*	*d.*
Cotton	9	7·88
Tea	11·25	10·45
Coal	·118	·121
Totals	20·368	18·451

Although we have employed the same three articles, the conversion of each to the price per lb. (Tea thus forming the principal factor in value) has changed the former aggregate rise into a fall; and the average decline, proportioning the totals, amounts to about $9\frac{1}{2}$ per cent! It is obvious, accordingly, that this crude measure of comparison leads to discrepant and, consequently, untrustworthy results. And the complexity of examination on any similar plan is evident, when we remember that the actual quotations with which we are required to deal are variously expressed in the Statistical Returns, according to the customs adopted for different classes of goods, as shillings and pence per qr., per cwt., and per ton; shillings per lb., per qr., per cwt., per sack, per load, and per ton; pence per 8 lbs. and per lb.; £ per ton, £ per tun (olive oil,) and pence per gallon (petroleum).

But in the method of Index Numbers no such complexities exist; no reduction to uniform denominations of values or quantities is requisite; each article in the standard period is taken at the average value quoted for its customary quantity on sale, and the value is treated as 100; the similarly quoted values of the articles in the year under examination are then obtained from the current lists of prices, and are expressed as percentages of the standard values. Thus the 100 forms a constant Index Number of each commodity for the standard period, and the deduced percentage-value for the year in question constitutes the Index Number of the article for that year. A comparison of the latter Number with the typical 100 shows whether, and to what extent, an increase or diminution of price has occurred.

Before constructing Table III in respect of the three commodities already selected, an example of the process may be presented. In the period of 1867–77 the average price of English wheat was ascertained to be 54*s.* 6*d.* per qr.; in the year 1907 the average price was 30*s.* 7*d.*; the 54*s.* 6*d.* is adopted as 100, or the average point (or Index Number of Wheat for the base), and the corresponding Index Number for English wheat in 1907 is obtained from the proportion, $54\frac{1}{2} : 30\frac{7}{12} :: 100 : x$, whence $x = 56$ as the Index Number for this commodity in the year 1907—showing, accordingly, a fall of $(100–56 =)$ 44 per

cent below the standard price of 1867–77. [The exact value of x is nearly 56·12, but Index Numbers are taken to the nearer whole number.] It may be added that the Index Number of Wheat for 1906 was 52, so that during the year 1906–7 the price had advanced by 4 per cent. In a similar mode the Index Numbers for all the remaining articles included in the adopted list are computed. In pursuance of this scheme no reduction to common denominations (as between the several articles) is involved; and we consequently rearrange Tables I and II in the form of—

TABLE III

Nature of the commodity.	Average prices (or Index Numbers) during 1867–77.	Average prices or Index Numbers in the year examined, in terms of percentages of the standard prices.
Cotton, *d.* per lb.	100	87·5
Tea, *d.* per lb.	100	92·9*
Coal, *s.* per ton	100	102·8
Totals	300	283·2
Averages	100	94·4

* Thus, from Table I, 11·25 : 10·45 :: 100 : x = 92·9.

An average fall in the aggregate price of the several commodities (taken together) is thus exhibited of (100–94·4 =) 5·6 per cent.[1] In other words, the discrepancies between Tables I and II are avoided by reducing the prices of the standard period to a common term (100 each), and then expressing the prices of the year of investigation as percentages (*i.e.* Index

[1] The result presented in this Table may, of course, be furnished in components—using (+) for a rise and (—) for a fall.

The change of price (the difference between the two columns) is—

$$\text{In respect of}\begin{cases}\text{Cotton} & (-)\ 12{\cdot}5 \text{ per cent}\\ \text{Tea} & (-)\ 7{\cdot}1 \quad ,,\\ \text{Coal} & (+)\ 2{\cdot}8 \quad ,,\end{cases}$$

The algebraic sum is . . . (—) 16·8 ,,

and the average alteration is $\frac{1}{3}$, or (—) 5·6 per cent, as above.

Numbers) of the standard term—ascertaining thus the variation of each price from *its own* starting-point in the original series, and then deducing the average general change by taking the arithmetical mean. In Tables I and II the aggregate result is determined by the fortuitous fact that one or more articles have a unit of measurement which is relatively large or small, while on the plan of Index Numbers each article in the standard period is placed at a common level, and the corresponding article in any year under consideration is related to it as a percentage. It is obvious that whether we reduce the whole of the articles in Tables I and II to a common denomination of both value and quantity, or retain them at the recognised modes in which they are expressed by the customs of commerce, the result of the scheme of Index Numbers remains unaltered. Take, for example, Coal, to which is assigned the Index Number of 100 for the standard period; its Index Number (or percentage) in the year examined is thus expressed—(Table I) 264*d.* per ton: 271·33*d.* per ton :: 100: x, whence x=102·8, which is the Index Number of Coal for the year considered, and showing thus an advance of 2·8 per cent. [Index Numbers, as I have remarked, are regarded as integers, and the usual course is pursued of turning ·5 and upwards into 1, and cancelling decimals under ·5.] From Table II the proportion becomes (where the ton is converted into lbs.) $\frac{264}{2240} : \frac{271{\cdot}33}{2240}$: 100: x, where the one 2,240 cancels the other, and the same result of 102·8 is produced. The same mode of calculation, as I have stated, is adopted in respect of each commodity in the list, and the average aggregate price of the mass of commodities is the arithmetic mean of the sum of the Component Numbers.

In illustration, I extract from Mr. Sauerbeck's statistics the prices of the constituents of animal food—these consist of Prime Beef, Middling Beef, Prime Mutton, Middling Mutton, Pork, Bacon and Butter. Mr. Sauerbeck furnishes the average price of each during the period of 1867–77, and then the several prices which prevailed during (let us assume) the year 1907. Deducing from these data, as already explained, the Index Number of each article in 1907, we obtain, in the preceding

order of the articles, the Numbers of 83, 84, 95, 98, 87, 85 and 86, or a total of 618. The total standard Index Number of these commodities in the selected period (1867–77) is $7 \times 100 = 700$, *i.e.* the number of separate articles multiplied by the common term of each. Hence in 1907 there occurred a fall in the aggregate price of animal food of (700–618=) 82 in 700, which is equivalent, by proportion, to a decline of 12 per cent, using the nearer integer; in other words, 618 is 88 per cent of the 700, or a diminution of 12 per cent, where 88 is the aggregate Index Number of the specified group for the year, to be compared with the total standard Index Number of 100 ($\frac{700}{7}$) for the same group. The same result is obviously obtained by dividing the sum of the Index Numbers of the articles by the number of articles, or $\frac{618}{7} = 88$.

The general Index Number of a group of commodities is usually termed the Summary Index Number. In the same mode we can deduce the single Index Number (so as to present a complete conspectus of change) for the entire mass of commodities comprised in the List for any particular year of survey (thus combining together Vegetable and Animal Food, Minerals, Textiles, and Miscellaneous Articles), and then obtaining, by proportion with the standard scale, the *general* variation of aggregated price which has occurred. The individual Index Numbers having been calculated, the sum of the whole of these is furnished for each year by Mr. Sauerbeck in the *Journal of the Statistical Society* and by the *Economist* in its annual Commercial History and Review. The former authority employs the prices of 45 articles, while the *Economist* adopts 47 which are reduced to 22 by combining certain articles of similar nature into one group—thus, 2 descriptions of Sugar are united, 4 kinds of Butchers' Meat constitute a single group, 4 qualities of Raw Cotton are coalesced, and so on. The total standard Index Number of the *Economist* is accordingly $22 \times 100 = 2200$ as the fundamental basis of comparison. Selecting the sum of the several Index Numbers of the *Economist*, formed from the prices of the 22 commodities on the 1st of July, 1908 (which was 2310, and is termed the "Total Index Number"), we have the proportion, 2200 : 2310 : : 100 : x, whence $x = 105$, or an average general increase, in 1908, of

5 per cent, compared with the standard aggregate price during 1845–50. The total standard Index Number of Mr. Sauerbeck is $45 \times 100 = 4500$. The grand sum of the several Index Numbers for the year 1907 (the latest available) was 3588, and the relative proportion ($3588 : 4500 :: x : 100$) gives the total Index Number for that year of 80, exhibiting, accordingly, a fall of average aggregate price of 20 per cent compared with the general price existing during the period of 1867–77. The same results are, of course, produced by dividing the sum of the Index Numbers by the number of articles respectively: $\frac{2310}{22}$ and $\frac{3588}{45}$.

The standard prices employed by the *Economist* are the average prices prevailing during the period of 1845–50, while those of Mr. Sauerbeck consist, as has already been stated, of the average prices current for 1867–77; and in each scheme the processes are, of course, identical for ascertaining the change of price of a single article, or of a group of articles of similar or different kinds, or of the entire collection as a body.

Table III, it may be added, does not afford a completely correct measure of the general variations in price, since the fact, for example, that Tea has fallen in value does not possess an equal significance, in the importance of national use, with a rise in the price of Coal. To the *individual* consumer, however, a slight decline in the cost of Tea assumes a larger consequence than an equal advance in the price of Coal. The aggregate use and consumption of the country will vary in respect of the several commodities, and this obviously will affect the comparative importance of the combined changes of value in the market. If we could ascertain from statistical inquiry (and this could approximately be gathered from the differences of quantities) that the ratios of consumption of Cotton, Tea and Coal were respectively 2, 4 and 1, we might form Table IV as a mode of closer estimation. [This modification (from actual facts) of the constituents of a compound, so that the truth which the compound really represents may be revealed, is imperative in science or quantitative knowledge. In a scale of physical pains, a transient headache would not be assigned the same value as a prolonged fit of gout.]

TABLE IV

Article.	Price (Index Number or percentage).	Measure of importance.	Product.
Cotton . . .	87·5	2	175
Tea	92·9	4	371·6
Coals . . .	102·8	1	102·8
Totals . . .	283·2	7	649·4
Averages . .	94·4	...	92·8 (division by 7)

The preceding process is termed that of "weighting," that is to say, allowing to each commodity its relative influence upon the general result, by multiplying each by a unit which expresses its proportionate importance as a factor in the national consumption. It is evident that the appropriate unit for multiplying or "weighting" each article is the *quantity* which is used, since, without some adjustment of this nature, a quarter of Wheat at 30 $\frac{7}{10}$*s.*, a lb. of Tea at $8\frac{1}{4}$*d.*, and a ton of Iron at £$7\frac{1}{2}$, are treated as possessing an equal importance in consumption. Mr. Sauerbeck accordingly inserts in his yearly Paper upon prices the modified Index Number obtained by the incorporation of quantities. It will be sufficient to specify the results for the years 1906 and 1907—

Year.	Arithmetical mean of the 45 Index Numbers.	Index Numbers formed by the introduction of quantities.
1906	77	74·2
1907	80	79·5

In deriving the Index Numbers in the third column, he calculates the quantities in the statistics of the United Kingdom at their actual values (the Imports, for example, according to the Board of Trade values), and at the nominal values on the basis of his average prices for 1867–77. The Numbers obtained by the two methods are identical for 1907, but discrepant to the amount of upwards of $3\frac{1}{2}$ per cent for the year 1906. The

reason is to be sought in the extent of the rise or fall of important articles of consumption as compared with the changes of articles of less significance. The results are sufficiently close for all practical purposes, especially when we bear in mind the various errors to which all extensive collections of data, not framed upon a generally uniform system, are unavoidably exposed. In another series of three years, the disturbance in the ordinary Index Numbers (when quantities were introduced) was traceable to the exceptionally high export price of Coal (a prominent item in British trade), and, omitting this exaggerating element, Mr. Sauerbeck ascertained that the difference between the usual Numbers and those resulting from the inclusion of quantities for the 43 remaining articles (two Index Numbers being assigned in his scheme to Coal) was reduced to the insignificant figure of about ·7 per cent only in each year.

In order to alleviate in some degree the undue influence of this equality of importance of his 45 kinds of commodities, Mr. Sauerbeck represents, in his Tables, certain leading articles by more than one Index Number—Wheat, for example, with Flour, possesses three Numbers. By expedients of this nature (the repetition of some commodities in different grades) the commodities have been selected in such a way that the total number of quotations for any group—such as Meat, Textiles, and Iron—represents approximately in its proportion to the entire mass of the 45 quotations the comparative importance of the stated group in the whole commerce of the United Kingdom. An interesting instance may be cited of the distorting effect (upon the general average level of prices) which may be occasionally produced. In 1862 the total Index Number of the *Economist* Table was 2878; in 1863 it was 3492; in 1864, 3787; in 1865, 3575; while in 1871 it had fallen to 2590; that is to say, a comparison of the records of 1871 with those of 1864 (bringing the 2590 into relation with the 3787) showed a decline in *general* prices of about 32 per cent. This result revealed, *primâ facie*, a startling aggregate change; but an explanation is ready. In April, 1861, the war commenced between the Northern and Southern States of America; the blockade of the Southern Ports, whence Cotton is obtained for English manufactures, was proclaimed; and the war practically

terminated in April, 1865. The large extent, then, to which Cotton is included in that Table of Index Numbers (three Numbers being allotted to different kinds of this product) accounted for the disturbance, since, during the continuance of the struggle, the price of Cotton and Cotton Goods naturally acquired an excessive and unexampled rise in consequence of this blockade and the limited supply thus rendered available to meet the sustained demand. In Mr. Sauerbeck's list of commodities, where Cotton has two Numbers and the aggregate Index Number of all articles was 4533 in 1864, and, in 1871, 4382, a general decline of practically the same extent existed. I dwell upon this example as a serious lesson in practical conduct and argument for the purpose of showing the imperativeness (and virtual impossibility) of so adjusting the range of inclusion of various kinds of the same or related commodities to the total number as to diminish the chance of a misleading general conclusion; and the equal necessity of a sagacious interpretation of aberrant or exceptional results. Statistics in themselves, of all descriptions, without the exercise of the most scrupulous judgment and specialised experience, are fraught with constant perils of error, and are most dangerous instruments in the hands and use of unwary and unequipped inquirers. Confusion in the employment of terms is admittedly a most fertile source of fallacy; but the unskilled application of statistics in social and political questions claims an almost equal distinction of delusion and aberration. The grave objection, however, that all articles, important or comparatively unimportant, in national consumption are treated alike has been met by a mathematical investigation by an eminent authority to the effect that, practically, ordinary Index Numbers (to which this criticism applies) yield closely accordant results with those of Indexes of a more formally exact nature. The reason appears to reside in the fact that the particulars having been selected without definite bias from staple commodities which happened to be quoted in wholesale price-lists, the commodities in general have moved in fairly uniform direction and mode, so that one choice is productive, on the whole, of results which do not substantially differ from those yielded by any other form of selection. And the calculation each year separately in accordance with quanti-

ties would obviously entail an egregious amount of labour whose results would not adequately repay the toil, while, as an additional difficulty, the statistical data for this purpose are frequently incompetent of being completely obtained. Certain considerations upon the general subject may be usefully discussed.

1. On what principle should be determined the selection of the kind and range of commodities as the basis of Index Numbers in order that the list may be adequately representative? It is obvious that very special or rare objects or articles of very restricted use cannot be included, since, from their character and limited extent of demand, they are not subject to the influences affecting the variations of the prices of commodities generally. It is this general estimate we seek to elucidate, since we are concerned with the question of universal consumption and not with commodities definitely restrained in the area of their request. The only reasonable doctrine—and dependent accordingly upon judgment and experience—appears to be that the chosen articles should be staple (*i. e.* leading or principal) commodities in extended use. Mr. Sauerbeck included in his Table of 1886 (and I understand that this criterion applies to all his subsequent catalogues of prices) only those commodities (produced and imported) which amounted in the year to about £1,000,000 in value or upwards. [Even with this limitation, articles considerably beyond the prescribed boundary are thus regarded on the same level of importance as those which just attain it.] And with respect to the descriptions of goods selected, Tobacco appears in the *Economist* Table, but is excluded from the schedules of Mr. Sauerbeck; while in neither do we observe the important articles of consumption, Wine and Spirits—Mr. Sauerbeck explaining that no trustworthy statistics were available. Coal, again, though properly comprised by Mr. Sauerbeck under two distinct headings (and Index Numbers) on account of its prominent significance in British trade, fails to find a place in the *Economist* Table. Moreover, in both Tables the included commodities consist almost exclusively of raw materials and provisions; and the prices of every description of manufactured articles are almost wholly absent. Now the number and value of transac-

tions in manufactured goods after they leave the workshops of the manufacturers on the way to consumers probably exceed appreciably the number and value of similar transactions in the raw materials to which both these Tables are essentially confined. In the exclusion, accordingly, of the prices of manufactured articles a very significant element is missing in the determination of a completely general history of prices.

2. A pertinent inquiry relates to the number of different commodities to be employed. It might appear, on a first consideration, that the more extensive were the range of commodities embraced, the more adequate, typical and conclusive would be the result. But this assumption is not justified, since, as has been explained, the more spacious be the list the more proportionately are comprised articles of infrequent or specialised use which, being less liable to the ordinary conditions of supply and demand which govern prices generally, would thus tend to obscure and distort the general change as determined by the permanent and universal conditions affecting the demand for commodities of wide utility and request. The single guide appears to be that, bearing the preceding requirements in mind, the survey should be sufficiently extended to include the more important descriptions of principal commodities. We are thus cast again upon the exercise of individual or collective discrimination, which only prolonged and sagacious study can confer.

3. A standard period of average prices—with which the prices of any particular year or years may be compared through the agency of Index Numbers—must be adopted with a view to excluding any exceptional or temporary changes of price which might be found to prevail, from various and non-recurrent causes, or from causes which cannot be reasonably predicted, during a period of brief duration. Our criterion should evidently be adequately typical. The period selected by the *Economist* embraces the six years from 1845 to 1850, while Mr. Sauerbeck's comprises eleven years from 1867 to 1877. There can be no doubt, I consider, that Mr. Sauerbeck's choice of the length of term affords the preferable and more stable basis, since it includes allowances for all the sequent and recurrent characteristics and contingencies which constitute a

completed cycle of trade. The appropriateness of a range of eleven years is expounded in Chapter XIX, based upon the indications of physical phenomena and the concurrent appearance of the vicissitudes and crises of trading operations. In justification of his adoption of this particular term, Mr. Sauerbeck has shown that the period was marked by the ascent of prices to their highest elevation since the new discoveries of gold; that it comprised, further, some years of reduced prices; that its scope embraced four years of depression in trade, three years of advancing prices, and four years of diminished prices. He also ascertained that the average level furnished by the values of this term corresponded exactly with the average level of the twenty-five years from 1853 to 1877, so that a comparison of the aggregate average prices of all commodities in any given year with those of the eleven years from 1867 to 1877 is really equivalent to a comparison with the entire series of twenty-five years from 1853. It is an inevitable reflection that, owing to changes in the customs of trade, the altered preferences exhibited for certain forms of consumption, and any persistent variations of supply and demand, the standard of prices fixed at one time as the origin of comparison may, after a lapse of years, require to be rescinded and a more modern and typical criterion substituted.

4. It will be observed that the prices employed in the construction of Index Numbers are wholesale prices exclusively; and hence, if an attempt be made to deal with the varying values of commodities consumed by classes of the public—"family budgets," as these inquiries are termed—the difficulty occurs that the prices so included must be retail prices, and modifications would require to be introduced—for example, the cost of distribution must be added.

5. The question has frequently been raised whether, in forming the summary Index Number for a group of commodities or for the entire mass of commodities, the arithmetic mean is the suitable process. Assume that b is the average price in the standard term of one article, and c its changed price in a future year (whether increased or reduced), while m and n are the corresponding prices of another commodity. The mean ratio of change by the use of the arithmetic mean

is $\frac{1}{2}\left(\frac{c}{b}+\frac{n}{m}\right)=\frac{cm+bn}{2bm}$, while the application of the geometric mean furnishes $\sqrt{\frac{c}{b}\times\frac{n}{m}}=\sqrt{\frac{cn}{bm}}$. [If the quantities employed be p in number, the geometric mean would be the pth root of the continued product of the p ratios.] Presuming in the preceding case that one article has remained unaltered in price (that is, taking the first, $b = 1$ and $c = 1$), while the second article has increased by 100 per cent (*i.e.* $m = 1$ but $n = 2$), the mean rise of price by the arithmetic mean would be $(\frac{1}{1}+\frac{2}{1})\frac{1}{2}-\frac{1+1}{2}=1\frac{1}{2}-1=\frac{1}{2}$, or 50 per cent, but, by adoption of the geometric mean, the general change would be expressed by $\sqrt{\frac{1}{1}\times\frac{2}{1}}-\sqrt{1\times 1}=\sqrt{2}-\sqrt{1}=1{\cdot}41-1={\cdot}41$, or 41 per cent. Professor Jevons, in his investigations into the fall in the value of Gold, employed the geometric mean on the ground that it furnished a value midway between that of the arithmetic and harmonic means. Where the quantities (and their changes) examined do not deviate widely from each other, the results of the arithmetic and geometric methods are practically identical. Thus, the arithmetic mean of the closely similar numbers 5, 6, 7 and 8 is 6·5, while the geometric mean is 6·4. But if one or more of the quantities (especially in a series of limited extent) differ substantially from the remainder, the results of the two methods become more and more discrepant. Thus, if we take the series 6, 8 and 20, the arithmetic mean gives 11·33, and the geometric mean of $\sqrt[3]{6\times 8\times 20}$ produces about 9·86. A writer has shown that if the following group of numbers represent the respective levels of price of different commodities expressed as percentages (or Index Numbers) of their values at a previous epoch—namely, 20, 20, 80, 80, 100, 100, 120, 160, 324, 972—the arithmetic mean is 198 and the geometric, 104. A general examination of the list of prices which he was considering amply showed that an average rise of 98 per cent was impossible, while an advance of 4 per cent afforded a reasonable and evident approximation. He deduced the tentative rule that where the geometric mean differed appreciably from the arithmetic mean, the former method should be preferred. A concrete illustration relating to the

prices of commodities will exhibit clearly the divergence of the two methods, and bring into exercise the perception and decision of common sense. The paramount supremacy of cultivated common sense in the interpretation of social, economic, and financial questions is too constantly a neglected guide; and many of the wild and obscuring conclusions in thought and action — based upon imposing masses of figures and tabulations which simply confuse the feeling of proportion and reality—would be truly perceived in their nonsense by the light of this ordinary sense. In the calculations incident to customary affairs of business the geometric mean varies so slightly from the arithmetic mean that the latter, with its simplicity and ease of application, may be adopted both on the ground of economy of labour and adequacy of result. But the case is different when the alterations of prices extend over a wide range of ascent and fall. Take one article whose price (100) at a stated date has in a subsequent year of inquiry increased by 100 per cent, so that its value is now expressed by 200. Assume that another commodity has fallen in value by 50 per cent, so that its original price (100) is now represented by 50. The arithmetic mean of the original values is $\frac{100 + 100}{2} = 100$; that of the subsequent values $\frac{200 + 50}{2} = 125$, or the average advance in price of the set is 25 per cent. Common sense asserts at once that this result does not furnish an accurate exhibition of fact. A rise of 100 per cent and a concurrent fall of 50 per cent would obviously indicate that the average would not be changed. We summon into evidence the geometric mean; and we perceive that the mean at the origin was $\sqrt{100 \times 100} = 100$, while the mean at the later date was $\sqrt{200 \times 50} = \sqrt{10000} = 100$, or that the level of average price (in consonance with the decision of common sense) has continued constant. Hence, in these statistical inquiries into the altered values of commodities the geometric mean furnishes the criterion in agreement with its use in questions relating to population and other social phenomena—though, perhaps, without the same completeness of justification.

It should be noted, further, that the adoption of the geometric mean involves the advantage, in the case of exceptional upward movements of one or a few articles, of reducing the extent of their disturbing influence upon the general average. In other words, the utility of the geometric mean is the diminished liability, compared with the arithmetic mean, of the result being unduly affected by extremely high prices—possibly dependent on a temporary cause. Thus, in the cited example of the series 6, 8 and 20, the substitution of the arithmetic mean of 11·33 brings down the importance of the exceptional element of 20 by 43⅓ per cent, while the geometric mean diminishes its disturbing effect by the higher percentage of about 50¾. But notwithstanding the superior theoretical claims of the geometric method the practical consideration of the facility and simplicity of the arithmetic mean must not be neglected; and in investigations, generally, it must be remembered that minute accuracy is impracticable, and that a superior theoretical method may often be found to involve a waste of time when it is applied to data which in themselves are, from the nature of the case, more or less infected with errors and discrepancies which cannot reasonably be avoided. Indeed, it may be expressed as a statistical canon that the more extensive and complicated be the facts which we seek to unravel and understand, the more decisively does an assumed decimal exactness proclaim its own imbecility of result. As actual comment upon these observations, the following figures may be cited, which Mr. Sauerbeck obtained for three separate years by the employment of different methods—

	Index Numbers for		
	One year.	Another year.	A third year.
By the geometric mean . .	60·4	60·9	87
By the exact arithmetic mean	62·1	62·9	87·8
By using an average with allowances for the quantities of the different commodities	60·8	62	87·3

It is evident, then, that in inquiries of this nature, which

must essentially be approximate, the arithmetic mean may be serviceably employed.

6. The plan upon which the prices of commodities for any year are calculated deserves attention. In the system of Mr. Sauerbeck, the values annually quoted are the averages of the twelve monthly values of the year, and, in the case of the more important commodities, the averages of the fifty-two weekly values. The values employed by the *Economist* are the quarterly prices for the standard period of 1845–50, and, for each subsequent year, the prices which existed on the 1st of January in that year; an independent series of Index Numbers is also furnished on the basis of the prices current on the 1st of each July. The scheme of Mr. Sauerbeck thus appears to be more decisive and trustworthy as being dependent, not on values which, if settled for a specified day, may be influenced by exceptional circumstances of trade and demand, but upon the values experienced throughout the whole of the year, where special excesses act as correctives to passing influences of a contrary character. It should in justice be stated, however, that an acknowledged authority in statistical inquiries has expressed the judgment that, in investigations of this nature, a collection of prices at an assigned date in each year is practically almost as valid as the average of prices current during the entire year itself. It is most improbable, he considers, that in any year the prices at the stated epoch would vary materially from the average of that year in consequence of some abnormal cause. Upon this point judgments may rationally differ.

The difficulties and contingencies incidental to the system of Index Numbers have now been described. But, in addition, the following notes may be mentioned. The *descriptions* of some articles are not infrequently altered in the course of time, so that confusion is possible of occurrence; constant changes also take place in the *quality* of some commodities, which thus involve an impairment of the equality of comparison; prices naturally become affected by the closer commercial contiguity of nations which permits of more expeditious exchange between producer and consumer, and, from thus being less dependent upon the retention of stocks of goods, the markets are less liable

to manipulation by speculation. The cost of production, again, is diminished by successive inventions and improved mechanical and chemical processes, with a consequent influence upon demand and supply; variations in popular preferences, fashions, or sense of utility are in perpetual operation; and reduced prices in one article in the List (*e.g.* Wheat) may affect rye and other corn. Nor can corrections of the List be fully allowed for in respect of extraordinary and excessive fluctuations. Hence the total Index Number (whether associated with quantities in the calculations or not) does not afford a complete and accurate representation of the changes of values, as it is incompetent to compass all the vicissitudes attendant upon trade with the proportionate distribution of its materials, and fails to provide for the relative importance in consumption which those materials from time to time varyingly possess. The compilers of these useful and admirable Numbers must "trust," as one writer observed, that in a spacious range of commodities, inequalities and variations in one direction will balance those of the contrary character, and thus, in the aggregate survey, permit a reasonably illustrative history of prices to be exhibited. This notion is a popular form of the assumption which lies at the basis of the Theory of Errors—the assumption that errors (or divergencies from the truth) are equally likely to occur in excess and defect, so that the best medium is presented by the arithmetic mean of the discordant measures. A comfortable—and in most instances a necessary—doctrine in the face of difficulties, but one whose acceptance in any particular investigation must be preceded by as exhaustive an analysis as possible with a view to determining the probability of its validity. Index Numbers, notwithstanding all these sources of imperfection and incongruity, are valuable and compact modes of scrutinising with ease, rapidity, and sufficient exactitude the successive and related features of an extremely complicated problem. To Professor Jevons, it should be mentioned, is attributable the merit of introducing this mode of comparative estimate.

The student should study, in connection with prices, the variations in the value of gold as a standard of measurement. Gold is simply a commodity like corn and iron, liable to

changes according to the extent of its supply for the performance of the commercial services it is required to render and for utilisation in the arts and industries. The comparative values of two commodities are altered when the ratio of the quantities customarily exchanged for each other in a free market becomes changed. If, on the average, a ton of iron bars has been exchanged for £8¼, and subsequently this term of the ratio advances to £9½, the inference, in this limited case, is uncertain whether gold has fallen in value in consequence of its greater abundance and more easy production (from new mines and cheaper processes) or whether iron has increased in value from becoming more scarce and difficult to extract, or whether the conditions of demand and supply have altered on each side. But when we examine a larger and larger number of articles and discover that in every case the same quantity of gold which formerly was sufficient to buy a defined amount of the several articles now purchases a diminished quantity of each, we may reasonably (and indeed necessarily, as the area of confirmatory evidence widens) follow the guidance of the doctrine of probability and affirm that it is gold itself which has sustained a diminution in value. For on this supposition, *one* cause alone, affecting gold, will explain the changed ratio, while if we attribute the alteration of prices to the collection of commodities compared with gold we must postulate as many separate and concurrent causes as there are articles involved—assuming that the articles are so selected that one is not directly or closely dependent upon another. The more extensive, then, be the number of independent and varied commodities examined, where all of them have risen in terms of gold, the clearer is the probability that gold is the subject of the change. If no variation in the supply and demand of two articles has occurred (or if the alteration in the supply and demand of each has been precisely proportionate) so that one cwt. of one commodity remains on a uniform parity of exchange with a similar amount of another commodity, the altered value of gold does not affect their ratio of exchange. For if each requires for its purchase at one time the sum of £5 and the exchange-ratio of £5 afterwards rises by 20 per cent to £6, this increase in gold-value equally affects both commodities, and the exchange of cwt.

against cwt. is undisturbed. It is when money has to be paid in exchange for commodities that the modified effect is directly experienced.

It is usual in these questions to speak of the *appreciation* of gold or an increase in its purchasing-power, or command, over commodities, where a greater quantity of goods requires to be given for the same amount of gold than before; and the *depreciation* of gold, or a diminution of this command, where a smaller quantity of commodities is procurable for the same quantity of gold. The more appropriate expression, however, to be employed when we are referring to money of any description would be, in respect of appreciation, that there is a rise in the purchasing-power of gold (or money) measured by wheat, copper, or a certain group of commodities so arranged that an average is presented.

If in any survey, accordingly, it be ascertained, for example, that it is gold (or the standard) which has depreciated in value, various social and economic consequences ensue. All contracts expressed in gold benefit the debtor at the expense of the creditor; for the former obtains the requisite supply of gold at a less expenditure of commodities and services, while the latter acquires with the amount a reduced quantity of commodities and the necessaries of life than before. British fundholders (the amount of their property being fixed in money) suffer for the preceding reason; so do stockholders, annuitants, owners of Debenture stocks and Preference shares bearing a fixed rate of interest; mortgagees of properties; depositors in Banks; officers and men in the Army and Navy; pensioners, and many others. The relation of a depreciated value in the standard to the amount and annual charge of our National Debt can be readily observed. Since a specified amount of gold, in this condition, is exchangeable for a reduced quantity of goods and services than before, the capital of the Debt and its yearly burden for interest are implicitly diminished in pressure in the ratio of the fall of money—when expressed, that is to say, in terms of commodities. The annual demand for the discharge of its interest is thus abated in consequence of the lessened supply of the products of industry which the satisfaction of that demand exacts, and in this undesigned remission all the

taxpayers of the kingdom participate in approximately precise proportion to the taxes for which they are liable. A fundholder, accordingly, while suffering by reason of his fixed interest controlling a contracted quantity of necessaries and goods generally, yet concurrently derives advantage from the lightened burden of taxes which he sustains.

When, on the contrary, gold has become appreciated in value, in other words, when the values of commodities measured in gold (*i.e.* their prices) have declined, the farmer, for example, who pays his rent in gold, endures a twofold detriment in his accounts, for a stated amount of produce procures a decreased quantity of gold, and the gold embodied in the rent can only now be obtained by the expenditure of an increased store of produce. In contracts expressed in gold, an added burden is imposed upon Debtors for the reason assigned; the gain in the development of industry which they would otherwise have secured is arrested or reduced. The holders of ordinary shares in Commercial undertakings where Debenture stocks and Preference shares rank in priority, possess a contracted margin of security, since the appreciation of gold implies a diminution in the value of the entire undertaking, and accordingly, after allowing for the fixed and permanent superior charges, a narrower margin exists. On the other hand, with the greater purchasing-power over commodities involved in each sovereign, the owners of Debenture stocks and Preference shares (thus belonging to the Creditor class) receive a benefit. Capitalists who are both Debtors and Creditors may experience minor change from the enhanced alteration in the standard, for while the properties which they possess may thus be lessened in value, the interest they obtain from Government and similar securities of fixed amount affords a compensation by the enlarged range of command which it carries.

The appreciation of gold may be obviously produced by various causes apart from the failure of mines or a diminished productiveness, incommensurate with the expansion of commerce; since the enhanced demand may arise from the resumption of specie payments in any country which had recovered from financial distress, or from the adoption of a

gold standard by nations where previously a silver currency alone had been employed.

"The Bulletin of the United States' Bureau of Labour Statistics," issued officially in 1915, forms an interesting volume upon the Index Numbers of Wholesale Prices in that Country and Foreign Lands. This I here utilise on various points already treated by me, together with a memorandum published by the *Economist* newspaper on the 26th August, 1911. I classify the observations in numerical sequence.

1. The construction of an Index Number comprises (1) the definition of the purpose for which the final results are to be employed; (2) the selection of the numbers and kinds of commodities to be included, in order that the articles may form an adequate representation of prices generally; (3) the decision whether these commodities shall all be treated alike (as of equal value in production of the standard), or whether a process of "weighting" shall be adopted according to their relative importance; (4) the collection of the actual prices of the accepted commodities, and, if a scheme of "weights" is to be introduced, the collection of the data which determine their proper significance; (5) the decision whether the average variations of prices shall be measured or the variations of a sum of actual prices; (6) if average variations are to be measured—as the more significant course for our purpose—the choice of the base upon which the relative prices shall be computed; and (7) the form of average to be struck.

2. It is useful to remark distinctly the difference between "simple" and "weighted" Index Numbers. The Index Number is weighted when an attempt is made to ascertain the relative prominence of the several commodities employed (say, *e.g.*, the comparative amounts of consumption), and when a plan is pursued which thus enables each commodity to exercise an influence upon the final results proportionate to its stated importance. But when each commodity is taken just as it occurs in the statistics, and is thus allowed the same chance of modifying the result as every other commodity, the Index Number is termed "simple."

3. On the question of the kind of average to be adopted

the writer of the Bulletin, like myself, generally prefers the arithmetic mean.

[I might mention, without details, that the methods of the "Median," the "Mode," and the "Harmonic" mean have also been advocated in the formation of an average.]

4. I should also have recorded the Reports upon Index Numbers which are issued annually by our Board of Trade. The base there employed is the year 1900; the prices are adopted for the years 1871–1906, and the Index Numbers refer to forty-five Articles—mainly raw materials. The Index Number is weighted on the basis of the amount of consumption of the different commodities in the United Kingdom; and "consumption" is defined as any process by which the commodity is substantially changed in character—not a very lucid mark.

5. As regards the computations of the *Economist*, the basis for calculations of the Index Number was, in 1911, altered to that year, and the number of commodities employed was then increased to forty-four instead of twenty-two. The Index is founded upon the simple arithmetic average. It is worth while condensing the comments of the *Economist* when effecting the change. A specified number of representative commodities is chosen; the prices of these for a given year or series of years are adopted as a basis, and the price at the date when the calculation is required is computed as a percentage of the base-price; these percentages are then combined to form a composite number representing the percentage alteration in price in the entire group of commodities. Thus, if wheat has risen between (say) 1850 and 1860, 20 per cent; beef, 30 per cent; cotton, 24 per cent, and pig-iron, 26 per cent, then, taking these articles as a whole, the rise of price is 25 per cent $\left(i.e.\ \frac{20+30+24+26}{4}\right)$; so that the Index Number for the latter date would be 125 with 100 as the basis, or 500 if 400 had been selected as the basis. Hence, the Index Number does not represent any given price, and may not even represent the change of any particular commodity. But the system is a device for comparing a whole series of otherwise incomparable price-schedules, where the

result represents the *general* level of prices. If the Index Number be accurate, it is evident that it represents the change in the purchasing-power of money; in other words, it shows how much more or less the sum of £100 will purchase at one period compared with a previous period: a rise in the Index Number signifying that fewer commodities may be bought for a sovereign, while a fall means that more may be purchased.

CHAPTER XIX

THE PHASE OF COMMERCIAL CRISES IN THE COURSE OF TRADE AND THE SUCCESSION OF SUNSPOTS (*see Note*, p. 267).

A PHASE is the condition shown at any epoch by a body or occurrence (usually termed a phenomenon), which passes through a series of regularly varying conditions within a more or less definite period of time—any particular phase being repeated as the body or occurrence returns to the point at which this phase appears, like a globe revolving in a prescribed orbit of permanent form. Stagnant trade, steady trade, buoyant trade, and all intermediate and connecting states, with their causal results registered in various financial and social events, form the different phases which commercial activity perpetually presents in successive sequence and regular recurrence. Prior to any statistical or scientific inquiry it had been empirically known that the agricultural and other phenomena of the earth passed through these uniform cycles, and the association between these phases and the conditions of commerce were too obvious to exclude recognition and fragmentary registration. The existence of rhythmical[1] series of occurrences in nature is too general to escape attention, and apart from all empirical observation it was natural therefore to expect that there should be "tides in the affairs of men," both on the general ground of the prevalence of rhythm, and the dependence of material productiveness upon the changing conditions of the earth. And although in an indefinite manner

[1] Greek ῥυθμός, measured motion ; a movement marked by the regulated succession of strong and weak elements or of opposite or different conditions.

it was surmised that these periodic[1] movements upon the earth were related to mutations occurring in the sun upon which all the modifications of the earth's energy essentially depend, it is only in comparatively recent times that some distinct approach has been successful in detecting the approximate quantitative as well as qualitative connection of these changes. A recognition of cyclical[2] or circle-like variations in all material and human events was, under the conception of the uniformity of the processes of nature, ready to be extended to occurrences which failed to present any very obvious appearance of being embraced within the general law of regularity of recurrent change. It had been gradually ascertained that all motion in nature assumes a rhythmical character, a movement or swing to and fro, or up and down, or to right and left in alternate and continuous sequence and return: a repeated succession of opposite states. This doctrine in its general form was first enforced by Mr. Herbert Spencer. Flags under the pressure of a breeze undulate from end to end; blades of grass exhibit tremulous risings and fallings of position; the courses carved out by rivers invariably assume the shape of serpentine curves; the heart throbs in measured movements; each sonorous pulse of air is simply a motion of compression and dilatation, while the rays of light and heat, and all electrical manifestations, are but alternate vertical undulations in the ocean of ether. But, besides this simple rhythmical form, we perceive a combination of rhythms where an object or occurrence revolves through larger and more varied alternating courses, which are repeated in regular order within succeeding periods of approximately equal length; each phase or appearance forming a fixed point in a reëntrant curve along which the object or occurrence perpetually moves. This conception of a cycle in human experience was known in a general way to Sir William Petty, the economist, who in 1662

[1] Greek περίοδος, a way round; περί, round, and ὁδός, a way; the time of a circuit.

[2] Greek κύκλος, a ring: then applied to any circular motion, orbit, or revolution. The descriptive use of the term in commercial and financial events indicates their recurrent nature in approximately regular succession of repetition within a closely defined period of time.

spoke of "the cycle within which dearths and plenties make their revolution." The peculiar feature in these wider ranges of variation is the gradual attainment of a maximum[1] of intensity; then a descent to a minimum[1]—the complete course between a maximum and the succeeding maximum, or from one minimum to the next, being comprised within a closely equal duration of time. The shape, position and dimensions of the orbits of the planets are thus in perpetual variation in consequence of the mutual gravitational attraction by these bodies. If the changes persisted in accumulation in one direction only, the stability of the solar system would be ultimately destroyed; but these perturbations of the orbits—deviations now on one side, then on the other, of an average form—are periodic in nature, and confined within marked and narrow limits—maxima and minima alternately being reached.

The facts in the following exposition—which presents the concurrence of cyclical effects produced upon the earth with a cyclically occurring condition of the sun—have been collected from the most authoritative scientific treatises. The most orderly plan will consist in first describing the knowledge which has been obtained respecting the spots on the sun whose influence (or rather the influence of gigantic periodic convulsions of energy occurring in that body of which the spots are prominent indications) is traceable in terrestrial changes. The visible surface or disc of the sun (named the photosphere or round of light) is intensely lustrous—consisting of matter in a gaseous or vaporous state—and furnishes the source of all the heat and light which the earth receives. At regularly recurrent intervals the uniform level of this intensely brilliant and enveloping surface is partially rent by cyclonic storms, possibly of an electric nature, into cavities or hollows which have received the name of spots. These spots or perforations of the photosphere first appear on the eastern edge of the sun: are carried across by his revolution (besides possessing proper

[1] The maximum value of a quantity is not the absolutely highest value which that quantity can attain; it is that point in its ascent of values which is higher than the infinitely near point on each side of it: the minimum being that point in the descending course of values which is lower than the point which is infinitely close to it on each side.

motions of their own) in about fourteen days and disappear at the western limit: they are limited in situation to two zones (a northern and a southern) parallel to the solar equator. Sometimes the same spot reappears when a revolution is completed, and sometimes does not return, another taking its place—the average life of a spot being two or three months, the longest on record showing a duration of eighteen months. They usually are present not singly but in groups, and each appears to possess an individual character of development and decay. The depth of a spot or depression below the level of the photosphere has been estimated at from 2000 to 6000 miles. There can be no doubt that they do not consist of clouds floating above the sun's luminous surface, but are definitely attached to the surface itself, and hence, from this connection, they are necessarily involved in the fiery tempests which periodically convulse that orb. Irregular in shape, their dimensions vary considerably, and the extent of their possibilities of influence upon the earth may be measured by the fact that in 1858 a spot opened with a diameter of 144,000 miles, capable therefore of easily engulfing eighteen of our earths side by side; a spot possessing a diameter of 30,000 miles would be considered large. The centre of each hollow or spot appears to be extremely dark compared with the brilliancy of the photosphere of which it forms a rent, and surrounding each central portion is an edging of lighter shade. The result of protracted observations upon the sun accordingly shows: (1) that the photosphere—the source of our terrestrial heat and light, and consequently of all material aud mental energy—remains for a period in a comparatively quiescent and unbroken condition; then (2) the internal equilibrium of the sun is ruptured by the outburst of deep-lying forces which had been gathering intensity of action, and which tear the surface into spacious holes; and (3) as the violence of this storm of fire subsides into calm, the photosphere regains its even and continuous form.

Now the peculiarity of these aspects with which we are concerned resides in the fact of their periodic nature. The area of spots (attesting to this internal commotion) attains a maximum, when the spots or cavities are abundant and exten-

sive, and gradually descending to a minimum (when the spots are rare or absent), proceeds again, in regulated rhythm, to another maximum of prevalence. The interval between maximum and maximum of spots, or between minimum and minimum, was at first determined provisionally by Schwabe at about 10 years, and this result formed the foundation of solar physics. Wolf, from a more extended examination, placed the period at 11·111 years, with a probable error of ·307 of a year; and the most recent investigator (J. A. Broun) assigns the term of 10·45 years. The periodicity or regularity of occurrence of extensive maculation [1] (as the condition indicated by the presence of spots is termed), alternating with periods of freedom of the photosphere, has been finally established; and for practical deduction it does not appear to me to be minutely important that the periodic time should be expressed with decimal accuracy, for in the investigation of past records of the frequency or sparseness of spots, difficulty must constantly be found in fixing the punctual date of the different maxima and minima. The certainty remains that a settled law or uniformity has been discovered with a range of period of between 10 and 11 years. And although writers fix their attention naturally upon the spots themselves, the reader should bear in mind that the real causes of abnormal changes in terrestrial phenomena reside in periodic paroxysmal disturbances in the constitution of the sun itself, of which the spots form one conspicuous and invariable sign. In weighing the value of the concluding inference hereafter submitted, the reader will remember that upon the transmission of heat and light from the sun depend the faintest, equally with the most massive, movements of our air, with their effect upon every form of life; and that every drop of rain or crystal of snow, in water, mist, and cloud, owe their origin to the same cause. It will aid us also to remember that where a causal relationship has been established between two events, an increased or deficient energy in the cause at any time will be reflected in corresponding variations of the effect. The first remark that is suggested is—and this is coincident with fact—that since we derive the heat and light imperative for terrestrial and human existence and activity from the

[1] Latin *macula*, a spot.

photosphere or luminous envelope of the sun—his visible disc which is frequently named the sun himself—any diminution of this bright area which the spots or cavities produce will be attended by a reduced emission of energy. Hence a smaller quantity of light and heat is received while the spots are copious, and an augmented or normal supply when they are infrequent or absent. The total proportion of the solar radiation which the earth receives is about $\frac{1}{2200000000}$ths of the entire supply which he emits.[1] It has been surmised that the direct diminution of light and heat from the area of the photosphere which is thus ruptured would amount to the abstraction of about the $\frac{1}{1000}$th part of the entire quantity received; and it has further been conjectured by some scientists that compensation would be afforded by the greater quickness of the sun's circulatory processes, and consequent increase of emission produced by the disturbances of internal equilibrium, of which the eruption of spots forms a portion of the general effects. The evidence appears to be decisive that a diminished supply of heat and light is propagated to the earth during a period of spot-maximum (as the mere consideration of the structure of a spot would seem in itself to prove), thus showing that the sun is really a variable star with a period of about eleven years. Mr. S. Langley estimated that the centre of a spot emitted about 54 per cent and its edge or penumbra about 80 per cent only of the heat and light which would have been radiated from that area of the photosphere had these spots not fractured its continuity. The appreciable extent of the effect of this diminished energy upon terrestrial phenomena will be sufficiently proved in the ensuing statement of physical facts.

1. The earth is traversed by magnetic currents—directly dependent upon the heat derived from the sun—which produce the pointing of the compass-needle to the north pole (or rather at present to the west of north). At regular intervals the needle, in whatever part of the earth it be placed, undergoes violent and erratic oscillations—departing vehemently from its diurnal excursions both in range and intensity. This is the result of a

[1] Or expressed in another form: if the sun's distribution of heat and light be divided into about 22 hundred millions of parts the earth obtains one part only.

disturbed condition of the earth's normal magnetic state, and the effects are termed a magnetic storm. These storms coincide exactly in the recurrent periods of their occurrence with the times when the spots (as marking the existence of portentous solar convulsions) attain their maximum amount—the swings of the needle (as signs of the storm) being more frequent and more intense when the spots are copious, and less violent when the spots are few. The doctrine which has long been accepted is the recognition of a direct causal connection between these storms and extensive areas of spots. At such periods the currents of electricity traversing the earth's surface become so strong that communication by means of telegraph wires is rendered impracticable.

2. The displays of the Aurora Borealis (a phenomenon caused by electric discharges in rare air) invariably become more frequent, resplendent and general (appearing in both hemispheres) when the spots are numerous and large. As a matter of fact the magnetic storm accompanies the wider auroral manifestations. It has been shown that an almost perfect parallelism exists between the curves of auroral frequency, brilliancy and range, and those of spot abundance: the highest intensity of auroral phenomena exactly corresponding with the larger development of spots, and the period of sparseness or absence of spots synchronising precisely with the diminution in area and vividness of auroral appearances. It is an accepted doctrine that a direct connection exists between the condition of the sun (as indicated by the varying proportion of his spots) and this celestial phenomenon. It may be added that the influence of solar disturbances is propagated with the velocity of light.

3. It is needless to point out how vitally the material condition of the earth—its storms and consequent shipwrecks and marine insurance losses; its agricultural fertility or barrenness; its droughts and consequent famines, and the luxuriance or failure of its crops, are causally associated with the state of its atmosphere, surface, and underground, as affected by these magnetic and electrical tempests. But I proceed to present a summary of specific statistics which have been collected.

4. Dr Meldrum, of the Observatory at Mauritius, has shown

from an examination of records (comprising two different spot periods) that the number, duration and violence of cyclones in the Indian Ocean have been greatest at a spot maximum—that is, when the energy of the sun was most pronounced—decreasing to a minimum in length and fierceness at the point when the solar maculation was least. Comparing the number of cyclones at two successive maxima of spots with those at two successive spot minima, I find that the ratio is nearly that of two to one. Indeed, Sir Norman Lockyer has expressed the view—perhaps too broadly—that the entire question of cyclones is simply a question of solar activity. This connection we can understand: at a period of extensive spots the sun's energy is at its maximum, and the communication of that augmented activity to our atmosphere accounts for the causation of winds of exceptional severity.

5. It would naturally follow that the number of shipwrecks and consequent marine insurance claims would vary directly with the frequency of destructive storms, and Mr. H. Jeula, from an examination of the records of losses at Lloyd's, and adopting two complete cycles of eleven years each, has ascertained that, during four years of each cycle when fewest spots appeared, the average percentage of loss in respect of registered vessels of the United Kingdom and the Channel Islands was 11·13, while during the three years of the greatest spot frequency the percentage was 12·49, or an excess of more than 12 per cent beyond the smaller figure.

6. Dr. Hunter, Director-General to the Government of India, has shown the periodicity of famines in Southern India caused by the failure of the rice crops as the consequence of deficient rainfall or drought, and that famines coincide with the minimum period of spots—the term of the recurrence of famines being nearly eleven years, or showing the same interval of time as that of sunspot freedom. Here again we may conceive that since the comparative absence of spots implies the more unbroken expanse of the photosphere, a larger supply of heat is radiated, with a consequently increased evaporation of water from rivers and streams in the form of aqueous vapour. It has been shown by Dr. Meldrum that the rainfall was greater at times of maxima of sunspots.

7. Bearing again upon the question of rainfall (or the absence of drought), it has been shown, as stated, that rainfall and atmospheric pressure in India vary in a periodic manner corresponding to the ten to eleven years between a solar maximum and maximum of spots—that is, in years of maximum spots the summer rainfall is above and the winter rainfall below the average, while in the years of minimum spots the cases are reversed. From records kept at Oxford it was ascertained that a greater abundance of rain fell when the spots were most numerous and extensive.

8. The question of the causation of any effect upon the earth's temperature (one of the factors of its productiveness) has been to an extent investigated. The most trustworthy mode of inquiry, remarked Mr. R. A. Proctor, is the examination of underground temperature, and here it has been discovered, through the researches of Professor Piazzi Smyth, at Edinburgh, that a slight increase of temperature occurs at the time when spots are least numerous.

9. In close connection with this point, I may refer to the relation between the weather generally which prevails from time to time upon the earth, and the periods of sparse or copious spots. The conditions which we comprehensively term "weather" are obviously dependent upon the energy, abundant or diminished, which is communicated from the sun in the modes of light and heat; and it is reasonable to infer that great changes in the one will be associated with similar ranges of modification in the other. But observed facts must be the staple of our inductions, and facts are not yet fully decisive; it is admitted, however, on such evidence as has been procurable, that some physical connection exists between spot-cycles and the periodical variations in weather, such as hot and cold years, wet and dry years, years of prolific and deficient harvests; but the direct relationship is so masked by other causes, which act in the production of weather, that any attempt at precise definition of the actual effect of solar maculation is not yet practicable. Mr. J. A. Broun, the well-known meteorologist, informed Professor Balfour Stewart that in his judgment all "meteorological phenomena are due to solar action; that the heating action of the sun is not the only one; but that the

action which produces variations in the earth's magnetic force affects the conditions of the atmospheric gases, introducing forces which we cannot, in the present state of our knowledge, appreciate, though the facts appear to me to prove their existence."

10. Dr. A. Schuster has shown, from an investigation into the relevant periods, that what have been considered to be good wine years in Germany have closely corresponded with minima of spot. Thus the years when spots were least prevalent were 1810·5 (that is, midway between 1810 and 1811), 1823·2, 1833·8, 1844, 1856·2 and 1867·2, while the coincident years of excellent vintages were 1811, 1822, 1834, 1846, 1857-8 and 1868. Since the quality of the grape depends upon abundant sunshine, it is observed that this condition is fulfilled during a minimum period of spots, when the entire area of the photosphere which constitutes the source of heat is the least riven with the rents and cavities which sunspots mean.

11. The inquiry is most interesting whether any causal relation subsists between a prosperous or adverse condition of harvests and crops (especially of wheat) and the frequency or infrequency of spots. The original and penetrating mind of Sir W. Herschel arrived at the conclusion that years of diminished spots coincided with years when the price of corn was low, while the price was increased when the area of spots became augmented, so that the fewer the spots, he concluded, the more favourable was the influence of the solar rays upon the growth of crops. This appears reasonable (though actual observations should be substituted for *a priori* considerations) since the years of least numerous spots are years of more continuous and equable sunshine and heat in consequence of the photosphere then possessing a uniformly unrent surface. This connection, if established, would concur with the statement relating to superior vintage years.

12. This suggestion naturally leads to the important investigations of Professor Stanley Jevons into the relation between commercial crises—one of the phases presented uniformly by the course of trade—and the sun's condition as manifested in the form of periodic spots. From an exhaustive examination of records Professor Jevons has found that the chief com-

mercial crises or financial collapses (confining our survey to the nineteenth century and to the close of Jevons's writings) occurred in 1825, 1836–9 (1837 in the United States), 1847, 1857 and 1866, showing an average interval of 10·8 years, which is closely coincident with the period from maximum to maximum, and minimum to minimum, of the solar spots. And including the crises which appeared in the eighteenth century and in 1804–5, 1815 and 1878 (the latter of which Professor Jevons predicted), he obtained an average period of 10·466 years which virtually accords with Mr Broun's result (the most recent and exact) of 10·45 for the duration of a solar cycle. Now the theory of probability (the sole guide in inquiry and conduct) shows that two periodic phenomena (spots and collapses of trade), varying in virtual coincidence, are causally connected. As Professor Foxwell has remarked, the conclusion which Jevons claimed to have reasonably and scientifically established was that the periodic variations in harvests are associated with the solar period, and that this harvest variation operates in the stimulation and determination of the naturally rhythmic fluctuations of European trade. For, as Jevons himself states, the fluctuations in the money market show a remarkable tendency to recur at intervals approximating very nearly to the range between maxima and maxima and minima and minima of spots. If, he says, the state of the sun governs vintages and harvests, it thereby determines the prices of food and raw materials, and as these constitute the articles with which commerce deals, the condition of the money market is also involved, since the latter depends upon the relation between the supply and demand of those commodities. These (practically) decennial crises depend upon meteorological variations of similar period, and these again depend upon cosmical variations of whose existence we possess evidence in the frequency of spots, of auroras, and magnetic perturbations. It would appear clear that Professor Jevons's conclusion will be converted into a scientific proposition with further and more exhaustive research—the essential point being that the two cycles of trade (from soundness through inflation to collapse) and of solar commotion are in exact parallelism—both as to course and boundaries—to each other. One or two coin-

cidences between changes in terrestrial phenomena and the modifications in solar activity might be due to chance—that is, to forces of which we possess no knowledge or conception. But when we compare the different and concurrent results which this exposition has presented we are compelled to conclude a definite relation of cause and effect in accordance with an important and established canon of inductive inference—that "whatever phenomenon varies in any manner whenever another phenomenon varies in some particular manner, is either a cause or an effect of that phenomenon, or is connected with it through some fact of causation." (*Mill's System of Logic*, Vol. I, Book III, cap. viii, § 6.)

The mode in which the depressions and disturbances of trade are produced (equally with its excited and exaggerated forms) may be reasonably suggested. The motive power in the activities of commerce is the feelings—mainly, the desire to amass wealth and the desire to avoid losses—and the feelings are undoubtedly affected in a marked degree by the nervous condition of the body: the spring of hope and energy produced by a bright sunny day is a familiar experience. Indeed, many scientists (including, if my memory be accurate, so practised a scientific thinker as Sir John Herschel)—and the hypothesis is strictly within the range of scientific conceptions—have suggested that the brain is a voltaic pile, and each of its pulsations a discharge of electricity through the frame, the sensations experienced by the hand from the beatings of the brain being similar to a voltaic shock. Hence a disturbance in the electric condition of the earth involves in many persons the form of nervous derangement known as a headache. A sense of vigorous energy issues from hopeful and sanguine feelings (resultant from the corporal condition), and manifests itself in activity of trade, while a dullness and despondency of spirits depress the courage, resourcefulness and enterprise on which enlarged trading depends. And these feelings become intensified beyond the range of their original cause when, as in trading, they embrace, from sympathy, a mass of minds. Nor must it be forgotten that the vigour of the human brain and frame—as the instrument of influence upon the feelings and resulting acts—is dependent ultimately,

through varied forms of tranformations of energy, upon the solar light and heat. Regarding then the established power of the nervous condition upon the feelings, the effect of external influences upon this physical state, and remembering that the feelings constitute the prime mover of our actions (the intellect being merely the discerner of the end which the feelings desire to grasp, and the deviser of the modes of reaching it), it would appear that the abnormal and periodic convulsions in the sun and his intermediate stages of quiescence are most likely to produce a corresponding modification of the nervous system and emotions of man, with relevant courses and intensities of activity, which find their successive expression in the circular variations of trade and finance.

Mr. R. A. Proctor has stated that Jevons placed the occurrence of commercial crises near to the period when solar spots were least in dimensions and fewest in number. I cannot discover such a proposition in any of the writings of the Professor, and, as Prof. Foxwell has noted, the contention of Jevons was simply the coincidence of the period of crises (as a phase in the regular cycle of trading features) with the term which comprehended a sunspot circuit. I do not think that observations are yet sufficiently mature and minute to determine the question whether crises concur with a maximum or a minimum stage of maculation. I should be disposed on the whole, on various grounds to attach weight to the former view, when—in addition to reasonable conjectures upon the causes of crises as the expression of feelings conjoined with physical conditions—we find, for example, that prominent crises occurred in the years 1805, 1815, 1825, 1836–9 (in America in 1837), 1847 and 1857, while sunspot maxima were attained in 1804–5, 1816, 1827–8, 1837–8, 1848–9 and 1860. But, as I have already remarked (while the synchronism of the two cycles has been fully established), the relation between any particular phase of trade and the coincident condition of solar activity is one which, fruitful of promise, demands extended observation, and, especially, analysis of the character of each crisis. The essential point, I repeat, is, not the incidence of a crisis with a maximum or a minimum of spots (which has not yet been determined), but the definitely-founded

truth that the periodic course of trade is—with that fullness of precision of which an enquiry of this nature admits—practically identical with the interval between each returning stage of solar energy. The definite demonstration, from facts, of a recurrent trading revolution with a period of between ten and eleven years, appears to me to furnish conclusive ground, as I have elsewhere suggested, for basing our estimates of the average value of securities upon the variations which they have exhibited during a term of that duration.

In the Notices of the Royal Astronomical Society for 1916, I find that, although the chief period for the occurrence of sunspots is usually considered to be 11·125 years, the real period is probably near 11·5 years (as stated recently by a well-known astronomer), and the latter result is confirmed by a late investigation of the appearances from 1750 to 1899, which showed—

In the Series	*An Interval of*
1750—1899 . . .	11·538 years
1750—1824 . . .	11·532 years
1824—1900 . . .	11·329 years

where the mean is about 11·48 years.

My doctrine thus seems to be fortified and conclusive—namely, that in ascertaining the values to be justly assigned to Stock Exchange investments at a stated epoch—where from the nature of the business (in the valuations of a Life Assurance Company, *e. g.*) we are clearly not concerned alone with the values of a particular day, but solely with the determination of the probable *average* values which include a reference to the prices of the future—the proper course is to base our estimates upon the average of the values of (say) the eleven years preceding the epoch in question. A value, thus obtained, is truly representative (in sound securities) and prophetic of the future, since it involves the normal vicissitudes of price which recurrently happen during a sunspot cycle. And, again, taking as an illustration, the valuations of the investments of a life assurance company, these assets are applicable to its claim-demands during the average future duration of its existing contracts, and hence it is obvious that the mode

of assessment at a valuation which I have advocated is the genuinely appropriate process. My suggestion naturally applies to the investments of any body whose values also appertain to a lengthy future.

NOTE.

The purpose of this chapter requires, perhaps, an explicit explanation. I have described the recurrent changes in trade which constitute the unfailing cycle of commercial experience; and, upon that exposition, I have founded the suggestions that troublous times necessarily involve an approaching improvement; that periodical valuations of securities should be based upon the prices exhibited during a continuous series of eleven years; and that the standard of typical prices of commodities (or Index Numbers) with which we compare the records of each year should consist of the average values prevailing during a term of that duration. It may be asked, however, why not rest the cyclical character of trade exclusively upon the actual and repeated experience of these returning changes? My reply is, that throughout the book (and as its distinctive feature) I have endeavoured to trace the *causes* of events to their origin in permanent phases of human and physical nature in order to render the processes more intelligible by showing the constancy and ground of their occurrence; and, in pursuance of this practice, the present chapter presents the observed uniformities of material phenomena as the cause of fluctuating markets and prices, and the stable foundation, accordingly, of the suggestions which I have thus ventured to propose.

CHAPTER XX

THE EFFECT OF THE EUROPEAN WAR OF 1914 UPON BRITISH FINANCE AND COMMERCE

In Chapter XI, I described in general terms, the mode and effect of the influence of war upon the industries of the nation —based upon meagre ancient records. Unparalleled in range and intensity, the present conflict furnishes a most impressive concrete comment and supplement to that chapter, enlarging its dim outlines into sharp distinctiveness of aspect; and the story is exceptionally significant, from our point of view, as exhibiting, with the vivid clearness of a recent experience, the experimental steps and stages of financial pressure and resource.

For we not even possessed any *general* plan of organisation, framed upon events of similar nature, into which the actual details might be incorporated which strenuous period after period might impose. The course had to be traced in comparative darkness and by tentative modes as arduous contingency induced contingencies more arduous still.

I purpose, accordingly, to present a brief but clear epitome of our financial and commercial essays during the earlier and more critical epochs. The culminating chapter of the war's history—the ἔπος of that mighty drama whose plot was conceived in ambitious and ruthless sin—will trace its influence upon individual, social, and national Character and Rule; the renovated nature of international relations as members of a universal family; and will prove the most memorable story in the lengthy Annals of the Race.

After careful reflection, it appeared to me that the most intelligible and logical plan of my brief history (employing the term "logical" in its technical sense) would be the presenta-

tion of the facts in a chronological order. For the record should show (1) the accelerating velocity of the events, and (2) the equally swift demands for decisions without deliberate premeditation. In this manner we can perceive the instantaneous causal relations which occurred. The course, too, conduces to impartiality and justness of criticism, for remedies which required to be devised in instant response to momently successive claims—remedies originating in circumstances which presented no prior parallel of experience for the creation of precedents—will, then, with our Statesmen's grave errors and incongruities, be judged with a serener regard to human limitations than would be accorded had those remedies been competent of more thoughtful and deliberate care. Moreover, we must constantly remember in our critical contemplation of the past and present, how vastly the mechanism of modern finance and commerce has grown complicated and extended; how developed and ramifying conditions of social life have called into being more intricate and perplexing relationships; how ancient problems have become modified and interlaced with fresh and diverse problems; and thus how comment must take its stand upon a wider level, and survey be enlarged into ampler and more thoughtful gaze.

1914

Like the impressive atmospheric state which frequently precedes a physical storm—a state of vague and ominous oppressiveness—the general financial condition had, for some time prior to the preliminary crisis of the war, been marked by apprehensions, more or less definite, of impending calamity. During the first half of the year, the banks and merchants in Paris had called in, and realised in gold, a considerable portion of the debts due to them from foreign countries, and, on the balance of imports and exports of gold, France was thus the most effectively fortified in this aspect for contingencies. Especially, also, had they been disposing for some time of their American securities, and a large proportion of their influx of metal was obtained from that country, which is always indebted to Europe in the form of United States' securities

held by European investors and of demands for coin by American visitors and residents on the Continent.

July 24th.

Continental speculators in securities sold large quantities of stocks in our Stock Exchange in order to reduce the extent of their investments in view of the possibility of political events depreciating securities generally and, indeed, rendering them entirely unmarketable. Hence the only solid holding under these premonitions consisted of cash. But equally were possible buyers influenced by the same considerations—particularly in respect of stocks which were peculiarly sensitive to foreign diplomacy and the political acts of continental states. But the depression was in no way limited to the more speculative securities or to those substantially liable to foreign influences. The value of securities (which I have elsewhere designated as "intrinsic," *i.e.* which, from their character, possess a permanent worth whatever temporary vicissitudes may intervene) was virtually merged in public judgment—so profound and wide was the demoralising effect of apprehension—with investments of a distinctively inferior nature. During this period of vague alarm, many jobbers ceased to make prices in the more speculative stocks. It may also be soundly conjectured that, in Germany and Austria, important banks and mercantile houses were privately but officially apprised of the catastrophe which the two Governments were manœuvring and manufacturing, and in both countries such official intimations are virtually commands to act. For on the advent of war, an imperative necessity in Germany and Austria was the accumulation of gold for the successful prosecution of their crime; and, moreover, the imbecility definitely persisted there—with that fatal lack of imagination in arrogant countries in picturing the mental attitude of other lands—of the certain annihilation of the Bank of England, and the consequent impairment of our power and hope. Hence the sales of vast masses of securities by these continental houses upon our Exchange, with the depletion of our Bank's resources by the abstraction of the proceeds in gold. And there can be no

doubt—knowing intimately as we now do, the perfidious precepts and practices of these peoples—that the representatives of those foreign firms in Paris and London were similarly employed in combination for the same sinister object by the same sinister modes.

July 25th.

The day dawned upon the Stock Exchange in ominous darkness, if indeed that can be termed a dawn which momently deepened in gloom. Every security of every description, the soundest equally with the most precarious, was disastrously affected. The phenomena of Fear, with which here and hereafter we are closely concerned, may be usefully and briefly depicted. We should first remember that each person possesses a virtually *constant* amount of energy—call it nervous or vital or by whatever term we please, since its nature is unknown—which it is impossible for us to increase and over which we can simply exercise a power of redistribution. This energy is that by which we physically live and act, by which we are competent of thinking and judgment, and by which our moral perceptions are sustained. This quantity of energy being fixed universally—the limits of its extent varying in each individual, but its total amount in each remaining constant under every change of distribution—any portion abstracted from customary or natural use in any section of our being, under the impulse of feeling or of any bent, temporary or permanent, of our individual disposition, necessarily renders all other departments of our nature deficient in power and activity: the physical aspect may thus be strengthened by a concurrent decline in intellect and emotion, or our mental capacity may be enhanced by a diminution of supply to our bodily processes. By a sudden transfer, then, of nervous energy under the dictation of apprehension of imminent evil, the digestion becomes impaired, the expiration enfeebled, with the concurrent disturbance also of the heart and circulation; and it is a familiar experience how dependent upon the normal condition and working of these functions are alertness of intellect, sobriety of judgment, and the calm control of emotion

from overbalancing the equilibrium of mind. As regards the Will, or volition, all energy for active exertion is entirely absorbed in the one direction to which it is morbidly concentrated by the sense of dread. In the intellect, the additional supply of energy, diverted from the organic processes, stimulates the perceptive powers and thoughts along the sole channel of a deepened impressiveness and consciousness of the sources of alarm. The mind becomes exclusively bent upon the object of terror to the cancelment of every other regard and to the paralysis of all consciousness and action in all counteracting forms. Fear depresses the organic functions on which sanity is built; the Will becomes the abject dependant of the predominant feeling, and the intellect is chained imperiously to the behests alone of the pervading dread. And where men congregate, and particularly where they are concerned in the same species of work and thought as in the market, this dominant feeling in each intensifies by contagion the similar feeling in others, and through this common sympathy the apprehension assumes the form of unreasoning panic. This digression suggests another—profoundly emphasised by a complete survey of the entire procession of events. Passing over the stupendous fact that, in the providential order of the universe, a single debased Will was able to convert the pleasant earth into indescribable desolation and woe, we were confronted with the possible lapse of all spiritual faith—where existed, or was visible, amid this barbarity, born of Germany, which no barbarous hordes had even previously matched, the justice of an Omnipotent God? And after a weary interval, the answer grew evident, and doubting trust again was guided to perceive the way. The Almighty effects His purposes through the agency of men as His ministers: and in the memorable and instantaneous uprising of the nations under the inspiration of a righteous demand for justice; in the resolute and united determination to endure the acutest privations in order to obliterate this intolerable curse; we at length discerned the execution of the Divine judgment upon the offenders.

On this day, many of the public, seeing the portentous and rapid descent of the finest securities, became purchasers for the purpose of holding until more settled times.

July 27th.

Our own Money Market had also become aroused to the need of action for the security of its financial position about this date. Yet there appears to have existed no definite suspicion of momentous issues. The reserve of gold in the Bank of England was reasonably large; and the bankers' balances in its custody indicated no depth of unrest in monetary circles.

It was observable, also, that although at the time the market discount-rate for bills here (*i.e.* in general terms, the charge for loans) was in excess of the bank rate, yet the Paris cheque-rate [1] on London fell from 25 fr. $17\frac{3}{4}$ c. to 25 fr. $14\frac{3}{4}$ c.: in other words, the value of the sovereign measured in francs became less: a sovereign purchased a diminished number of francs in Paris. It will be noticed that the selling of securities in the London market by Paris holders (in order to accumulate coin in France) caused an increased demand for drafts on France in francs, and this competition resulted in the sovereign exchanging for a reduced number of francs: the sellers were compelled by competition to give more sovereigns for a stated sum in French currency.

The London banks required the discount houses and bill-brokers to repay their advances, and owing to this consequent depletion of their funds those houses applied to the Bank of England for loans for carrying on their business in discounting bills.

Several jobbers on the Exchange declined to make prices at all; in other cases the quotations were so extremely wide that transactions became impracticable. The banks came to the assistance of dealers, so that the rates required from speculative buyers—rates of "continuation"—for postponement of the purchase-money until the ensuing Settlement, were only slightly increased. But dealers in the foreign market absolutely refused to make any prices whatever. Moreover, as regards International Securities, as they are termed (*i. e.* the Obligations

[1] The import of this term is the rate of exchange where the sums involved are payable at sight, *i. e.* at once; where, *e. g.*, the purchased bill of exchange being presented to the acceptor the money must be paid immediately like an ordinary bank cheque.

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of the various countries which are readily held by investors in other countries), sales were extensively attempted; the continental bourses being in grave difficulties, so that transfers there were impracticable, these local holdings found no place for disposal but our Stock Exchange, which, by purchases, revealed its supreme financial strength.

It is of interest to remark that, on this day, four immediately sequent sales of Consols were marked for cash at the prices of 73, 72, 71, and 72, while, at the House's closing, the price was recorded at 69¼. It was noted that the quotation had not fallen below 70 since the year 1821.

July 28th.

The Paris cheque rate of exchange again fell to 25 fr. 5 c., France thus endeavouring to draw as much money from London as possible; and it was remarked that the demands for money emanated mainly from foreign banks. These events clearly demonstrated that the vague apprehensions, existing in the foreign markets—more closely cognisant of the genuine interpretation of continental affairs than ourselves—were becoming converted into practical certainties.

The meditated and deliberate perfidy of Germany to the welfare of the world now reached its consummation in the declaration of war upon Serbia by Austria—the real assassin lurking behind the instrument put into another's hand.

July 29th.

Extensive demands for loans were made upon the Bank of England, and the Paris cheque-rate descended to 24 fr. 90 c. It is evident that the latter fact indicated an enlarged sale of securities here by French holders with the object of fortifying the financial position in France, and the effect was naturally twofold: the greater amplitude of sellings depressed by competition, the price realised for these securities, and the corresponding demand (by application of the proceeds) for drafts in francs upon Paris diminished the amount of French currency which each sovereign would secure. The significance of this decline will be apparent when we remember that this rate commonly varies between the "gold points," that is, between

25 fr. 32½ c., at which price, theoretically, gold would pass to London, and 25 fr. 12½ c., at which value gold would be transmitted from London to Paris.

It should have been remarked that concurrent with the fall in the Paris cheque-rate, the rate of exchange in New York (expressed in sterling) advanced to \$4·93 per £1—the value in New York of a sovereign in London standing at the exceptionally high point of 4 dollars and 93 cents; in other words, \$4·93 were required to be paid in order to place £1 in London. This change was consequent upon the difficulty of procuring marine insurance protection on shipments of gold by reason of the impracticability of the customary modes of remitting from America to England under the disturbances and apprehensions of this critical time. [It will be recalled that the par of exchange is \$4·8669 per £1, that is to say, when the mutual indebtedness of the two countries is approximately equal in amount; and the advance in the New York Exchange formed a sign of the necessity experienced in New York for the remittance of the immense sums of money owing by the United States to Europe as the consequence of sales of American securities.]

The Settlement on the Stock Exchange concluded without any symptom remotely approaching to disaster: compared with the Exchange Markets universally upon the Continent, our Exchange was proved to be in an eminently sound condition and virtually unimpaired.

July 30th.

The Bank of England rate for discounts and loans was raised from 3 per cent to 4 per cent on account of the numerous applications from borrowers; and upwards of £1,000,000 of gold on balance (*i. e.* a net sum to this extent) were withdrawn from the Bank of England's resources for transmission abroad. As indications of the intensified state of public uneasiness and premonition, the weekly bank return revealed the facts that the "other" securities were increased by nearly £14,000,000 as the measure of the augmented financial assistance which the Bank had extended to the money market in the form of discounts and advances, while

the increase of about £12,000,000 in the "private deposits" proved that the additional money thus borrowed by the market remained substantially in the joint-stock bankers' balances held by the Bank of England.

The protracted alarm had not yet excited the desire in the public to "hoard" money, that is, to remove funds from the banks for private keeping in the house or concealment in secret places. This foolish course, indicative of insane distrust and fear, has commonly occurred at all periods of general apprehension and panic, but the difference of occasion is marked between eras when no stable and universal system of banking existed, and modern times. Still, undoubtedly, hoarding was practised during the present stage, to the detriment of the currency, of trade, and of public confidence—self-regard is the content of every form of evil.

The ratio of the Bank of England's reserve to the amount of its liabilities had fallen, by 12⅜ per cent, to 40 per cent only, as a distinctive sign of impending financial dislocation.

The last meeting of the Stock Exchange assembled to-day, and the unprecedented fact is reported that during the first two hours no business was attempted. As a portent of this indiscriminating period, it may be mentioned that Canadian Pacific Railway Shares—an investment of an attractive character in normal circumstances—fell from the price of 188¾ in the preceding week to 157½ on the 30th of July—a decline of 31¼ or upwards of 16½ per cent. A further significant effect is afforded by the fact that during the ten days from the 20th to the 30th July (when the Stock Exchange closed) the aggregate reduction of price in 387 representative stocks quoted on the Exchange, amounted to £188,000,000—the principal depreciation occurring in British Funds, Foreign Government Securities, American Railways, and British and Colonial Railways.

July 31*st.*

The supreme financial stage now became imminent, and this day presented a spectacle in the City which had rarely, if ever, been witnessed in our monetary history. The Stock Exchange was closed by the Committee until further notice.

For the fall in prices was portentous: orders for sales of securities from the Continent following each other in swifter and vaster waves. How, then, were the public to be protected against their suicidal sellings, with ruin as the sequel? How, again, were the brokers (the public's agents), who had borrowed from the banks, to carry over their transactions? These loans on stocks involve a margin in the value of the securities deposited as their cover, and with the rapid decline of prices the margins had disappeared, and additional securities were accordingly needed to be obtained and deposited in order to maintain the advances. Moreover, this absolute vanishing of margins and the fall in value of the deposited stocks below even the amounts of the loans themselves, definitely tended, unless in some mode the headlong downfall could be averted, to the insecurity even of the banks—not simply in respect of their advances to the brokers, but in respect also of the value of all their convertible assets, with the consequent dislocation of this essential element of our financial machinery at the moment when its complete efficiency was most urgently required. Hence the act of the Committee. This decision—without a precedent in the memorials of the House—naturally magnified the general foreboding, and started a rush upon the banks, possibly in anticipation of a suspension of the Bank Act. Even after so brief an interval, imagination can but insecurely and faintly repicture the profound effect in extending the sense of fear. The closure of our famous and flexible market for the ready purchases and sales of all investments and commodities—for the exchanges of securities are radically the exchanges of the varied goods in every department of commerce which these securities represent—appeared to prelude the final paralysis of trade. But undoubtedly the decision was wise, although at the time many competent financiers termed it a mistake. Numerous failures of members, it was recognised, would otherwise have occurred, and, again, payments from the Continent for stocks sold to foreign banks and capitalists were quite impracticable of remittance. Moreover, at such a crisis of general perturbation, every failure becomes a centre of radiations of distrust and unreasoning action. This saga-

cious resolution avoided the disposal of investments by the public at wasteful prices which otherwise, under the stress of panic, would have resulted—every fall in value impelling and intensifying a deeper decline: it prevented the ruin of numberless holders by compelling retention of their securities; and thus, after the primary shock had passed, enabled men to gain a steadier composure and act under the dictates of reason and common sense. The trepidation of the event was infinitely lighter than the grave misfortune of the Exchange being forcibly closed by practical ruin through frenzied sales. The pressure in the Money Market was undoubtedly augmented by the decision; the public demanded cash at the joint-stock banks; and the banks, in consequence, called in advances from the discount houses, which, in turn, applied to the Bank of England for the discount of bills. Bills at first were purchased by the Bank on a basis of six per cent; but with the accession of enlarged competition the actual rate of discount was advanced to 10 per cent. The Bank of England, on the same afternoon, decided to raise its official minimum charge to eight per cent; and merchants who conducted business upon borrowed capital were thus seriously burdened in obtaining loans. It has been urged—and with justice—that this sudden movement from four to eight per cent in one day—with its grave consequences in enhancing public nervousness—and then the increase at such a moment to 10 per cent was ineffectual for the purposes which an advance in the bank rate is intended to subserve. But the rumour which gained credence in the City entirely absolved the Bank of England from blame. That rumour asserted that when it seemed probable that a suspension of the Bank Act might become necessary, the Bank inquired of the Treasury whether that august body would be prepared to grant the customary letter of indemnity that the Bank should be held blameless by Parliament for its violation of Law in issuing bank notes against securities beyond the statutory amount prescribed by the Charter. The Bank, it was stated, was officially advised that a suspension of the Act had never occurred until the bank rate stood at 10 per cent. And hence the

Bank, in this public financial emergency, was compelled, in deference to cloistral official traditions, to adopt that course.[1]

During the day some of the banks strangely declined to cash their customers' cheques in gold and simply offered notes and silver, and these calls for cash were largely demanded merely for the purpose of holiday expenses and the payment of weekly wages—both being settled mainly in coin. This was a proceeding difficult of interpretation by prudence and common sense. For the banks were fully cognisant of the fact that their action would simply drive their customers to the Bank of England for conversion of these notes into gold, and thus might produce in the acutest and most visible form a state of widening insecurity in the people's minds.

[1] Mr. Withers, in a later edition of his volume, has ascertained the facts. The Bank Act was really suspended. On the 1st August, the Bank of England advised the Chancellor of the Exchequer that unless they received authority to issue notes against securities in excess of the permitted limit they would be compelled (in consequence of the depletion of the Reserve) to curtail the facilities which they deemed to be essential to offer to trade and commerce. The Chancellor replied, on the same day, to the effect that if the Bank found it necessary to extend its discounts and advances upon approved securities so as to require issues of notes beyond the limit fixed by Law, this necessity should be immediately met, and an application for sanction would be submitted to Parliament. But no such discount or advance should be granted at a lower rate of interest than 10 per cent., and the Treasury reserved the right to recommend the imposition of higher terms. (The appropriate rate of discount obviously depends upon the actual and changing conditions of the Money Market, and these conditions are only to be known by constant intimate and practical contact. The reader will thus observe the ludicrous assumption by the Treasury of a more real and concrete knowledge of commercial needs than that possessed by the directors of the Bank with their trained sagacity, minute observation, and practised judgment.)

The Chancellor's letter is really a suspension of the Bank Act, and Parliament's authority was afterwards embodied in the Currency and Bank Notes Act of the 6th of August, 1914. The story may as well be completed here. In November, 1915, the Prime Minister stated in the House of Commons that since, on the 7th and 8th of August, 1914, adequate supplies of Currency Notes were not then available, certain Notes of the Bank of England were utilised, at the Treasury's request, for advances to Bankers under the Act just cited. Thus, this excess issue never appeared in the Bank's Return and only become known a year afterwards.

Although crowds of claimants thus presented themselves at the Bank of England, a possible danger failed to emerge; and the Bank promptly satisfied every claim. The people fully recognised that the financial bulwark of the nation—notwithstanding this local indiscretion—stood steadfast in wisdom as in monetary power.

Reverting to the Paris cheque-rate of exchange, it occurred that no quotation existed for Paris on this day. It appears that remittances on Paris had become unavailable, and intending remittors purchased gold for export to France. The reader will recall the New York Exchange (in sterling) upon London already mentioned, and by the end of the present week that exchange advanced to the unprecedented height of about $6 per £1 owing, among other demands, to the extensive sales of American securities by holders in Great Britain and the Continent. The payments to be made in liquidation of these purchases impelled upwards, by competition, the price in dollars per £1 in the United States. For at the end of this month the owners in Europe of American bonds and stocks, having no other market then available, almost overwhelmed the New York Exchange with their voluminous orders to sell.

Critical epochs point, with pungent insistency, to the qualities they demand: quiet wisdom with swift resolve; boldness of action with prudent oversight; vigour of character tempered and attuned with sagacity of choice; and happy is the people where, by touchstone of response, these epochs reveal the leaders after whom it can confidently toil: thus were we, as the verdict of posterity will affirm, in possessing the guidance of our incomparable Bank of England and our Stock Exchange of judgment and power. Mournful, however, is the record that this epoch failed to evoke, with authentic attestation of mission, a successor in statesmanship, or even apt disciple, to our "Great Commoner" of 160 years ago, when England supported even direr straits—he, the inspirer and instrument alike of a nation's hopes and deeds—whose biography, it has been justly stated, is written in the history of a reshaped world. In the ancient "Seats of the Mighty" we simply saw a crowd of little men.

August 1st.

Considerable uneasiness beset the discount houses respecting the extent to which they might be aided with loans and purchases of bills by the banks. Were the ready and reasonable discounting of mercantile bills and the grant of advances hindered, trading would collapse and the whole commercial activity of the country—upon which our position and prospects at this fateful period depended—would be irretrievably thrown out of gear.

The Bank of England advanced the official minimum for discount from 8 per cent to 10 per cent (thus agreeing with the final actual charge required on the previous day), and concurrently relieved the anxiety of the discount brokers by announcing that it would assist the Money Market as usual.

August 2nd.

Sunday here happily intervened, and afforded a further opportunity for quiet appreciation of the situation and the restoration of calmness of judgment.

August 3rd.

This was a Bank Holiday and helped to confirm the recovery from excited nervousness. But the recent experiences and their possible sequences furnished anxious thought for the Government in the maintenance of our commerce and the involved stability of our future action and preservation. In this universal dislocation and practical cessation of the mechanism of the exchanges—for it prevailed everywhere—in this abolition of the customary modes of remittance to London in settlement of debts due to this country—how would the "Accepting houses," as they are termed, be able to sustain their vital assistance in our continuous Import trade upon which our food supplies were materially contingent And this question became the more imperious when we reflected upon the possibilities involved in the development of the war, of vessels being prevented from entering our ports with cargoes of wheat and grains. In order that we may fully realise the significance of the official measures

which were adopted to obviate this serious difficulty, a digression is inevitable in illustration and explanation of this factor of commercial mechanism. Why, then, did the foreign exchanges collapse in so grave and universal a manner? What caused this dearth abroad of bills upon London, which might be purchased in foreign markets and used in the settlement of obligations due to England? And how was it possible that the essential function of "accepting" firms in the promotion of our Import business could be placed in this jeopardy? As relevant to our purpose, consider the Imports into England from America. The American exporter thus possesses a claim upon England for the price of the goods he has despatched, and draws a bill of exchange upon the English importer for the amount. This bill he sells to his American banker, and thus obtains the settlement of his account in dollars, and acquires immediate funds for prosecution of his business continuously. The banker then sells the bill in New York to those merchants who, having imported from England, desire to discharge, by means of such bills, their debts to English traders for the commodities which the former have received. If American exporters happen to have sold goods of greater value to England, their claims for cash upon London (in the form of the bills of exchange which they draw) will generally prove to be in excess of the demand in New York for bills in settlement of American imports. In this condition of reciprocal indebtedness between the two countries, the price of a British sovereign as expressed in American dollars will fall (*i.e.* fewer dollars will suffice to purchase £1 in London) and the exchange is then said to "move" or "turn" *against* London. If, on the contrary, America is required to pay extensive sums to England for interest upon (say) American bonds and stocks, bills on London are competed for in New York; their price per £1 in dollars advances (*i. e.* a greater number of dollars is necessary to provide the placing of each sovereign in London) and the exchange "moves" in *favour* of England. This explanation will be useful at a later stage. As we have already seen, all the exchanges were in favour of England except only the Paris exchange: that turned adverse to London because French

bankers had extensive balances in England which they endeavoured to bring home: hence bills on London were offered in such numbers in Paris that their price, as expressed in francs, fell heavily, as I have mentioned, so that gold was transhipped to Paris as the only available mode of remittance.

We return now to the questions with which we started. The foreign bill of exchange (as utilised in modern commerce) is ampler than the mode of remittance mentioned above. It is generally drawn as payable—not at sight, but—two or three months after sight, *i.e.* after the date on which, when it reaches London, it is presented to the person on whom it is drawn, for acceptance. The bill is customarily sold in the country in which it is drawn, to a banker or exchange-dealer: despatched by him to his representative in London, it is (after acceptance) sold, *i.e.* discounted at a bank by the representative: so soon as it becomes due its payment must be effected either by the British importer of the commodities (if drawn upon him) or by the bank or "accepting" house which such importer has induced (in consideration of a commission) to accept the bill. The acceptor in the latter case is termed an "accepting" house, and through his well-known name and reputation, his acceptance confers a superior financial rank upon the quality of the draft, and hence enables it to secure a readier market for sale and on higher terms. Bills bearing the name of such a house are currently described as "Fine Paper." Thus, until the bill has reached maturity, the importer possesses a credit for business transactions equivalent to its amount, and time afforded to him to dispose of the goods which have been received (and which the bill expresses), while, concurrently, the bill provides a sound investment for the discounting bank. But these are claims *upon* England, it is retorted, and do not involve a power of call for foreign money—indeed, the demand is upon England itself. That is true; but in addition to such bills (charged upon the shipment of goods hither), a large number of bills are drawn upon London without any transmission of commodities to England constituting their basis and warrant. For—as particularised by a recent writer—the financial

supremacy of credit which England possesses (as exhibited in the variety and volume of bills drawn upon this country) is so stably established and unique that masses of bills of exchange, unsupported by shipped goods to England, are drawn upon London. The *sterling* bill on London has become, indeed, the principal currency of trading between the different countries. A mercantile firm in China, *e.g.*, when sending tea to New York draws a bill in payment—not upon the buyer in America or upon an American bank, but—upon an "accepting" British house or bank with which the United States' importer has concluded an arrangement by means of the payment of a commission for the use of an established name. The bill finds its way to London; is there accepted, and is sold through a bill-broker to some London bank as an investment. Thus London stands as the financial centre to which the entire world gravitates in the interchange of commodities between one foreign country and another outside our shores. If then a crisis, similar to that of 1914, close this class of business, the supply of such bills on London ceases with wide ensuing difficulties to foreign merchants who seek, and seek in vain, means of remittance to England with which to meet such bills on maturity. This trouble is reflected in the concurrent anxiety of the British houses which have accepted them. Bills of exchange, through payment of a commission to a British accepting firm, are also drawn upon London for the financial convenience assigned where no transmission of goods occurs at all between countries. A bank abroad, *e.g.*, may arrange a credit, as it is called (open an account with probably the deposit of securities), with a London "accepting" house, and having sold the bill which, accordingly, it has drawn upon that house, may employ the proceeds in advances to its local customers for the prosecution of manufacturing or commercial purposes. [It might here be explained that the latter description of bills—which are drawn upon London without the actual shipment of commodities from place to place, but simply against deposited securities or the stable credit of the drawer or the name of a guarantor of the drawer—are usually termed "Finance Bills," and if prudently supervised as to extent

and soundness, they are held to be useful elements of trade and perform the function of obviating the settlement of claims in metal.] Let us summarise.

There were then coexistent: Bills of exchange on England for exports to England, which confer a right to extract payment from us; bills also drawn by England for British exports abroad which provide us with claims upon foreign lands; bills again drawn upon British "accepting" houses in respect of consignments between foreign countries alone; with finance bills already described—both of the latter bills entitling England to demand payment from abroad (since the transaction in each case is in reality an *advance* from London, which can be called in); and bills payable to England for various other commissions and services, for interest upon British purchases of foreign stocks and securities, and as payments for the use of British vessels in the conveyance of the goods of foreigners. On balance, accordingly, the bills which involved a payment by England (for merchandise shipped hither) were substantially inferior in amount to the quantity of bills which embodied claims by England upon countries abroad; and hence, after foreign merchants, for the discharge of their indebtedness to England, had purchased all bills of exchange upon London, a large excess still remained of foreign debts to this country for which no provision for settlement could be obtained. Hence the breakdown of the exchanges, for foreign countries were unable (in the dearth of bills of demand on London) to despatch commodities in satisfaction (looking to the enhanced marine risks incident to a state of war), and as to gold shipments they obviously preferred to retain their existing stocks undiminished: hence, accordingly, the balance of the accounts due to England was capable only of being partially rectified by foreign countries importing from England a reduced supply of goods and requiring diminished services from Great Britain—a result affecting the solvency of "accepting" houses and tending, unless adroitly managed, to increase also the extent of unemployment in our land. Thus, the strain of the war, even in this early stage, found the world in debt to England without the customary means of repayment; denuded summarily of bills of exchange on

London in every land except France; while even American wealth failed in remittances consequent on the local absence of bills, of gold, and of vessels for its conveyance. The grave position of "accepting" houses (banks and financial firms) —and, sequently, of the continuance of our Import trade in which (by their acceptance of bills representative of goods) these firms form essential factors—is thus evident, since those houses would be unable to discharge such bills on maturity (except out of their own existing and diminished resources) by reason of the inability of the drawers, through the subsidence of the exchanges, to remit the requisite funds in discharge. A concise conspectus of the preceding facts will conduce to clearness of perception of the important contingency which now confronted us: (i) "accepting" houses (banks and mercantile and financial firms)—fundamental agents in our foreign trade—are those who, for a commission, accept bills of exchange drawn upon London. Their acceptance is sought, since their credit generally is superior to that of importing British merchants (these prominent houses being more intimately known abroad, and their names upon a bill securing its higher status with a prompter sale and a better price). (ii) These acceptances, of course, render those houses themselves responsible for payment when the bills mature; (iii) as regards the acceptance of bills representative of goods shipped to England, the sale of those goods will satisfy the claims since the proceeds exist in England: but (iv) in respect of acceptances undertaken against cargoes passing solely between two foreign countries and purely finance bills where no shipments of commodities whatever are involved, the "accepting" houses must depend upon their foreign customers remitting funds before the bills fall due; when, then, (v) —(bills on England purchasable abroad for settlement of debts in England being non-existent owing to the world being liable to England, and not England to the world)—the mechanism of exchange was fractured by the disappearance abroad of bills upon London, which, if procurable (being there bought and forwarded to England) would have supplied these funds, it was soundly apprehended that some of the "accepting" houses would fail and their failure entail a

serious menace to our entire banking system; while, with them, would also concurrently fall the bill-brokers, whose business solely lives in bill transactions, and who were already pressed for the repayment of advances by the banks. Hence (vi) it was imperative to frame some effective provision for preserving our foreign trade (burdened already by enhanced costs of freight and increased Marine Insurance premiums) on which our existence reposed; and the sole mode of effecting this object lay in sustaining the stability of the "accepting" houses which provide the credit upon which that trade materially depends. And here let me remark, as a monitory sign, that in more normal times, the failure of a single extensive "accepting" house is sufficient to create a profound crisis in itself: consider the "Baring" default of 1890: what colossal catastrophe, then, might not have resulted had a series of these houses now succumbed! Accordingly, on the 3rd August, a Moratorium[1] Act was summarily passed: "The Postponement of Payments Act, 1914." This Act was of an "empowering" nature only, and gave permission, by a Royal Proclamation, to postpone the payment of any bill of exchange or of any negotiable instrument or any other payment in pursuance of any contract, to such extent, for such time, and subject to such conditions or other provisions as the Proclamation might specify. The duration of the Act was stated to be six months. On the same day, the powers

[1] (*a*) Mŏrātōrium is the neuter of the Late Latin Mŏrātōrius (ultimately from mŏra, delay): a legal authorisation to a debtor to postpone payment for a certain period. The earliest use of the term appears to have been made in 1875, when a leading newspaper reported that "the merchants of Belgrade, taking advantage of warlike rumours, had petitioned for a Moratorium." Another form of expression appears to have been "Moratory," where the word is an adjective and the complete form is a "Moratory Law"; this phrase was employed in 1891. "Moratory" is an adaptation of the Late Latin term cited above—"serving to delay."

(*b*) A curious mistake had occurred. A Royal Proclamation is the creation of Law and without the sanction of Law is invalid. Such a Proclamation, relating to the deferment of payment of certain bills of exchange, was issued hurriedly on the 2nd August prior to the passing of the Postponement Act on which these Proclamations were founded: not possessing, therefore, the authority of Law it received a retrospective sanction in Section I (4) of the Act named in the text.

contained in the Act were put into force by a Royal Proclamation in respect of "certain bills of exchange," where, on the presentation for payment of such a bill, other than a cheque or bill on demand, accepted prior to the 4th August, 1914, the acceptor reaccepts the document (in a form prescribed) the bill shall, for all purposes, including the liability of any drawer or endorser or any other party thereto, be deemed to become payable at the end of one month subsequent to the date of its original maturity—the amount expressed in the bill being increased by interest calculated from the time of reacceptance to the deferred date at the rate of discount of the Bank of England current on the day of reacceptance. In this mode an attempt was made to assist the "accepting" houses, the restoration of the foreign exchanges, and the Import and Export activity of the country. Subsequently, additional measures were instituted, to be hereafter described. The wise precaution was also exercised by Parliament of extending the Bank Holiday of the 3rd August for three additional days in connection with banks—thus continuing the vacation to the close of August the 6th.

August 4th.

The momentous historic event of this day was the public announcement by Government that, owing to the summary rejection by Germany of our request for assurances that the neutrality of Belgium would be respected, a state of war now existed between Great Britain and Germany. The German army had invaded Belgium, whose neutrality had been solemnly proclaimed and contracted by Treaty to which Germany itself and the other Powers were signatories.

The addition of three days to the Bank Holiday, besides its tendency to restore calmness of perception and judgment, possessed the further advantage of enabling the Treasury to prepare and issue notes for £1 and 10*s*. as a subsidiary currency to the £5 notes. This currency, besides obviating the use of gold in settling transactions, was contentedly accepted by the public by reason of its convertibility into coin at the Bank of England. But the innovation of the issue by the Treasury in place of the natural source, the Bank itself, was

one distinctly to be deprecated. It was rightly considered that (notwithstanding the convertibility at the Bank) the act was a needless and unfortunate violation of sound tradition.

It speedily became obvious that the Marine Insurance market of England could not sustain the stress of insuring British hulls and cargoes against the risk of capture by German cruisers. Unless then some effective remedy were applied our foreign trade stood in danger of collapse (particularly in respect of supplies of food), with the profound consequences of national instability and impotence, even of defence. An imperative solution was demanded for preserving unchecked our continuity of imports and—no less significant to our position—our maintenance of Exports to neutral countries. Accordingly the Chancellor of the Exchequer informed the House of Commons that, by means of our invincible Fleet and the establishment of a State War Insurance Scheme (for British shipping) our importation of food and raw materials could be rendered practically secure. Under this arrangement—which applied separately to the war insurance of hulls and cargoes—the Government entered into an agreement with the principal mutual insurance associations or clubs (to which the insurance of the hulls of steamships against war risks had mainly been transferred from the underwriters). But the clubs merely insured against war risks which were excluded from ordinary marine policies, and even this protection was restricted to vessels actually at sea or in the ports of an enemy when war occurred, until their arrival at a British or neutral port. The position, however, required that vessels should be continuously employed in commercial shipments from port (where they happened to be on the declaration of hostilities) to port. The clubs accordingly assented to maintain their insurance until each voyage was completed—80 per cent of the risk being insured with Government and the balance retained by the clubs. The remainder of the arrangement related to the insurance of cargoes where the Government accepted this particular insurance limited to cargoes conveyed in British vessels which the clubs had so protected against the risk of war. This scheme of the State exercised a vast and beneficial influence upon the continuance of our commerce. Our

shipping enterprise in the transit of food and materials was maintained, while, in consequence of the vigilance and ubiquity of our Navy, German merchant vessels were confined to port.

August 5th.

It was announced in the House of Commons that Postal Orders, as an additional extension of the currency, were constituted legal tender.

The business of insuring cargoes in British vessels was commenced by the War Risks Insurance Office of the Government at a provisional rate of premium of five guineas per cent.

The Railways passed, this day, under Government control for the conveyance of soldiers, munitions and materials of war.

August 6th.

The Bank reduced its rate of discount to 6 per cent.

The first Royal Proclamation referred merely to bills of exchange accepted prior to the 4th August. It was not the intention, however, to confine the relief of the Moratorium to the bill market, and accordingly a second Proclamation was issued, which enlarged the scope of the Moratorium to further descriptions of payments. It was provided that *all* debts (except as there specified) which had become claimable prior to the 6th August or which would become due before the 4th September 1914, in respect of any bill of exchange (being a cheque or bill on demand) drawn prior to the 4th August, or in respect of any negotiable instrument (not being a bill of exchange) dated before the 4th August, or (this was exceedingly important) in respect of *any contract* entered into prior to the same date, shall be deemed to be payable on a day one calendar month subsequent to the time on which the payment originally fell due, or on the 4th September, whichever be the later date, instead of on the day when payment was originally demandable. These postponed amounts, however (if not otherwise carrying interest), were to bear interest until payment as from the 4th August if they became due before that day and as from the date on which they become due, where that due date occurred on or after the 4th August. The rate of interest

was to consist of the Bank of England's current charge on the 7th August. The Proclamation was expressly stated to be inapplicable to salaries and wages; to rates and taxes; to maritime charges for freight; to dividends and interest upon stocks and funds in which trustees were permitted to invest; to bank notes and Old Age Pensions; and to certain other payments which need not be enumerated. This new Proclamation was necessary in connection with the currency system since it was essential to prevent any signs of financial distrust, which the calling-in of loans, at present incompetent of discharge (owing to the closing of the Stock Exchange) would have precipitated. Thus bills and cheques on presentation to the banks would be dealt with in the usual mode, subject to discretion in exceptional instances. The design was to render the Moratorium real, and obviate any extensive withdrawals of gold with the intention to "hoard." The perplexities of houses of business were thus attempted to be surmounted where obligations could not be satisfied by reason of the inability of foreign customers to remit the necessary funds in settlement of accepted bills.

August 7th.

The new Currency Notes were partially in readiness for circulation. Thus by this provident measure the serious danger, in a period of critical need, of limiting the circulation of coin by the withdrawal of sovereigns and half-sovereigns from the banks by private persons with the object of hoarding gold at home or in hidden places, was largely averted. It may be noted that this process of restricting the circulation exercises the detrimental effect of depriving banks of their supply of cash and compelling them to resort to the Bank of England in depletion of our national resources of gold. Almost up to the close of the seventeenth century, tradesmen and merchants on retiring from active business lived literally upon their savings stored in boxes in secret spots; and particularly in periods of social unrest. This peculiarity was mainly the result, as I have stated, of imperfect organisation in civic protection and the virtual absence of any sound and general system of banking. It may be added, in illustration,

that the greater portion of the French war-indemnity (£200,000,000) exacted by Germany in 1870 was derived from personal hoardings of the French peasantry. From a comparison of the Bank of England's Returns during the panic in London in 1866—the "Overend-Gurney" year,—it was made clear that at least £12,000,000 in notes and gold had thus been removed from circulation for private hoarding by the public. And notwithstanding the action wisely pursued by Government on the present occasion it was evident that—particularly in the country districts, where imagination, under the dominion of alarm, confines its test of value to pieces of metal that may be seen and handled—the hoarding of coin was still widely practised. We were for a time, in the early stages of the war, confronted by a different species of this form of selfishness: the public purchased from provision dealers vast stores of food in imbecile dread of possible famine—causing a needless increase in the prices of food to the detriment of the people generally, and especially to those who possessed no adequate means of storage. Happily, this egregious folly was speedily arrested, but the act reveals the power of imagination concentrated exclusively upon the adverse aspects of a problem and, more flagrant still, upon sole self-regard.

When the banks reopened to-day, the popular agitation had subsided. The mere act of prolonging the Bank Holiday had soothed public apprehension by its implied calmness on the part of authorities who were presumed cognisant of the entire situation with precision, and there was produced the deeper effect of tranquillising weary brains and perturbed feelings by compelled quiescence, with the sequent restoration of intellectual and moral equilibrum in the steadier confronting of difficulty. Mind is so inextricably and integrally associated with Body that, generally, the potent tonic for tumultuous emotion is—not a direct appeal to mind in the form of sympathy, advice, or even personal example and stimulus, but—the physical diversion of nervous currents from a concentrated route dictated by feeling into the more customary and diffused channels, through the simple agency of an enforced period of rest with its direct influence upon the body.

The Stock Exchange had been closed for a week, and it was now urged on all sides that the reopening should be ordered: on the one hand, by holders who naturally desired to learn approximately, by free dealings, the real worth of securities; and, on the other hand, by members whose current expenses were continuing without the support of income. It was considered at all events that if, at least, the actual value of Consols —the representative of British credit—could be ascertained, confidence, if not fully established, would certainly be steeled into stubborn resolve by revelation of the truth; many owners of Consols were willing to sell, even at heavily depreciated prices, in order to provide capital for their hampered businesses, and many buyers were prepared to purchase with cash, in the probability of greatly enhanced values thereafter. But the Committee's wisdom was happily, the sounder, since it was founded sagaciously upon a wide and clear perception of the vast general evils which would ensue to the country as a whole. Moreover, had the Exchange remained open or had been reopened, and free transactions permitted, opportunity would have been deliberately afforded to the enemy to supply himself with gold, for prosecution of the war, at Britain's expense; owners in Berlin, *e.g.* of Canadian and American securities could have sold them to banks and mercantile firms of Holland, receiving the proceeds in cash, while the Dutch purchasers could similarly have disposed of them on our Exchange.

August 8th.

The financial position had changed so securely, that the bank rate of discount was again reduced to 5 per cent, and popular hopefulness had dawned. This decline of the rate revealed, in a marvellous manner (ever to be remembered in our future history as a happy augury in periods of darkness where manly resolution steadies the heart and virile energy impels the brain), the country's reserve of permanent financial strength, since, during the lapse of one week only, our national credit had triumphantly lifted itself erect after the severest stroke which the most ancient memory or the most primitive records could recall. Gold was received from

abroad; and, unhappily, it was justly inferred that gold also continued to be abstracted for the selfish and deluded purpose of hoarding.

August 10*th*.

The adequacy of the amount of currency, it was found, had been successfully provided by the issue of the Government notes; and no *actual* suspension of the Bank Act (the authority to issue notes independent of a reserve in gold) had occurred although authority for this procedure had been obtained should necessity arise. [The reader is referred to a prior page.] It is a memorable tribute to our economic stability and organisation that during the acutest and, equally, the most prolonged crisis to which our finances had been historically subjected, the mighty orb of our commercial universe—the Bank of England—pursued its customary and ordered circuit without adventitious intervention or aid. Still, in the Money Market, enterprise and activity languished, though it must be admitted that this enforced quiescence was partially due to the necessary devotion of thought and labour in reducing the complicated condition, into which business had fallen, into its normal regularity and control.

August 12*th*.

Additional measures for relieving the tension and securing the buoyancy of trade were still evidently urgent: anxiety especially continued with respect to the discount of bills of exchange accepted prior to the 4th of August. It was imperative to render available the funds of banks and bill-brokers for the customary transaction of fresh business; for the bills they possessed were unserviceable (and accordingly large potential funds were uselessly stagnant) in consequence of the collapse of remittances to meet them from abroad. The course of new business-operations was thus finally arrested; and so vast an undertaking of restoring fluidity in use to enormous and idle resources could only be sustained by the State—in other words, the financial credit of the country. Hence the Government, after conference with the Bank of England and the other banks, agreed to guarantee the Bank

of England against any loss which might be incurred in *discounting* approved bills of exchange of the date just mentioned. The Bank of England, accordingly, on the application of the holder of any approved bill of exchange accepted before the 4th August, was prepared to discount at any time prior to maturity and at the bank rate, "without recourse to such holder" [thus providing funds for renewed business transactions]; and, further, when the bill matured, the bank would, with the object of aiding the resumption of normal commercial operations, grant the acceptor the opportunity, until further notice, of postponing payment of the bill—interest meantime being charged at 2 per cent in excess of the varying bank rate. Here certain expressions require notice, but before considering them it is well to summarise the successive stages towards securing the uninterrupted fluency of bills of exchange in their primary function of facilitating and extending trading activity and enterprise: (1) The Royal Proclamation of the 2nd August deferred the period of maturity for one month; acceptors thus gained time for ensuring their position and providing for their commitments in the hopefulness that the dislocation of the foreign exchanges might be adjusted, and remittances, with which to meet the bills, thus become practicable from abroad. But (2) experience failed to convert that hope into realisation, and, moreover, commerce was restrained, since the banks did not appear to be disposed to lock up further funds in the purchase of new bills when the value of those which they already held was not definitely assured. But when banks will not invest in bills, the bill-brokers (who "live and move and have their being" in these transactions) are abruptly placed at a standstill in business, since, with this disposition on the banks' part, they cannot rely upon bankers purchasing such documents in turn. Hence, the market for discounts stagnated, and foreign trade disastrously tended to become frustrated, in consequence of the difficulty in drawing and selling bills. How was the Chariot of Commerce to speed upon its course when its wheels—these Bills—were suddenly petrified into rigidity? (3) The removal of this *impasse* was effected by the action of the Bank of England which I have just narrated, founded upon the Government's guarantee. (4) It

will be noted that "accepting" houses were not released from their responsibility to meet the bills they had accepted, if their customers were still unable to remit the needful funds, but they were sustained in their position by advances from the Bank of England to provide their payment on maturity. I turn to the import of the qualification, "without recourse to the holder." Bills of Exchange may pass through many hands prior to maturity: each person who acquires a bill and sells it adds his endorsement, and thus becomes responsible to the purchaser if the bill be not provided-for by cash when its currency ends. The buyer of the bill, that is to say, possesses "recourse" for payment to his vendor: hence we have a regressus of liability, more or less prolonged, where each successive holder is entitled to a claim or "recourse" for settlement against the preceding owner from whom he bought. The guaranteed action of the Bank of England cancelled this obligation of the holder, and banks who held bills, being relieved of liability, could procure cash for their bills and thus enable monetary transactions and exchanges of goods to be continued. It should be added that the "holder" here mentioned apparently signified the holder who surrendered the bill on discount; and it was conjectured that former holders —predecessors in title to the actual holder at the time of discount—were not freed from liability in the event of the bill failing to be ultimately met. The latter contingency was partly modified by the promise of the Bank that on the maturity of the bill, the opportunity "until further notice" of deferring payment would be granted provided interest were paid at the bank rate increased by 2 per cent. The meaning attached to "further notice" was uncertain, but it was generally interpreted to refer to the termination of the war and the consequent resettlement of financial conditions. Did this guarantee entail any real risk upon the taxpayer, who forms the ultimate bearer of the burden? Was it probable, or even remotely likely, that the obligation would involve him in loss in addition to the massive financial loads to which he was already subject? Sagacious judgment answered emphatically, No. For (1) the term "approved" implied a discriminative, though rational, selection of bills under the

sound and cultivated capacity of the Bank; (2) there existed an additional protection in the fact of the financial stability of the banks and "accepting" houses on which the majority of these bills were drawn—banks and houses rendered the more stable by being able to conduct more freely their profitable business through this State provision; and (3) a kind of sinking-fund, or insurance premium, was implied in the additional 2 per cent for discount. When this arrangement was completed, the bank rate stood at 5 per cent, so that the real charge for discount was 7 per cent, and the Chancellor of the Exchequer afterwards stated that 2½ per cent belonged to the Government as compensation for the taxpayer's risk, 4 per cent to the Bank of England, and ½ per cent for the Bank's expenses in conducting the work.

A large amount of these "pre-Moratorium" bills, as they were named, was discounted by the Bank of England; a momentary revival of commercial energy appeared in the Money Market; but stagnation still generally persisted, for, while the banks and discount houses had thus acquired an important store of cash by the sale of "pre-Moratorium" bills to the Bank, there seemed to be no corresponding utilisation of these released resources in the grant of fresh loans and discounts, owing to the extreme caution evidently exercised in the selection of new bills. A further Proclamation was accordingly issued, which need not detain us. The postponement was applied (with conditions) to bills of exchange which had not been reaccepted under a prior Proclamation; but the main provision widened the deferment of payments to debts due from any banks whose principal place of business was situated in any portion of the British Dominions and Protectorates, notwithstanding the fact that those debts were not incurred within the British Islands, and that the banks in question possessed no business establishment or branch within those Islands. Thus the purpose of the guarantee had failed to achieve with any completeness the expectation which was justifiably entertained. The current of commercial transactions was not refreshened by the undertaking of new business in the discount market—the purchase of fresh bills. It seemed to observers that the banks, with this accession of available funds from

the conversion of their bills into cash—conferring the designed capacity of more fully performing their public functions in the development of general business—appeared to have become too strictly biased in fortifying their own corporate positions. Such a conclusion was perhaps natural at so excited a time, but I believe that no real justification for it existed in fact. In so severe a stress, reasonable caution in the choice of bills possibly carried with it a more permanent promise of public security. Bills, again, it may be noted, had become scarce through the constriction of commerce enforced by the war, but some new bills (*i.e.* post-Moratorium bills) were discounted.

August 31*st*.

The Chancellor of the Exchequer intimated that the Moratorium, which would terminate on the 4th September, must be continued for an additional month. He stated that the majority of traders were in favour of its extinction. But the preservation of the general trade of the country was so paramount, by maintaining the solvency of the acceptors of bills, that even excessive caution was preferable in such an emergency to what might prove to be a premature act. It was a noteworthy circumstance amid so deep a perplexity and impossibility of forecast—a sign equally of national character and financial ability—that the Chancellor was able to announce that the people, in increasing numbers, were expressing the view that it was their duty to pay if they could, and that their attitude proved their desire to act fairly towards their neighbours. The enemy, as I have stated, had confidently anticipated, as an essential element of his supposed machinery of conquest, that, through withdrawals of gold and the consequent impediment to our measures for the prosecution of the war, the Bank of England would be seriously crippled, if not entirely erased. But our Palladium of Finance, with the quietness of exuberant might, stood imperturbably firm: not the most transient tremor touched its steadfast strength: calm and soundness of judgment, the accurate gauging of successive crises, and the instant design of efficient aids, marked, and rendered triumphant, every phase. Fear can never rest for a moment upon our shores

while this stable and honourable centre of financial life exists; while, equally signal and memorable, the nation's fateful battleships haunt every water, instinct with the pauseless energy and daring of noble seamen; and while her sons upon the field retain the fine type and traditions of the gallant men, whose patient courage, whose cheerful endurance, whose humanity amid barbarity, are immemorially engraved upon the grateful records of the Land.

Towards the close of August, several conferences took place between the Treasury, bankers, accepting houses and merchants, and an arrangement was devised for dealing with the foreign exchanges and the involved cultivation and normal condition of the import and export of commodities. That plan included the provision of loans by the Bank of England to acceptors of bills with which approved pre-Moratorium bills could be discharged on maturity: these acceptors were made bound to collect from their foreign clients their overdue debts as speedily as practicable, and these funds were at once to be applied in repayment of the advances granted by the banks. The rate of interest upon these advances was fixed at 2 per cent in excess of the current bank charge. I should advert to another provision for facilitating fresh business and the movements of produce and merchandise from, and to, all parts of the world, which introduced the joint-stock banks as members of the scheme. These banks, in co-operation where needed with the Bank of England and the Treasury, were, subject to reasonable inquiry, to make advances to customers for the purpose of satisfying their acceptances on maturity where the necessary funds had not been provided in due time by the clients to the acceptors.

[I omit a fourth Proclamation which, containing an error, was revoked by a subsequent Proclamation.]

The Courts (Emergency Powers) Act (1914) was passed to-day. This measure differed from the Proclamations—which draw a definite line between debts that might be postponed and debts which must as usual, be discharged—by suspending the customary powers of creditors in certain cases until they had convinced a judge that the debtors' inability to settle was not occasioned by the war. The Act provided that no

execution to enforce any judgment or order of any court for recovery of a debt should be permitted except after such application to that court as may be prescribed under the Act: it further prevented, subject to the provision just referred to, the levying of any distress, the entry into possession of properties, foreclosure of loans, forfeiting deposits, and realising securities (except by way of sale by a mortgagee in possession). Similar protection was accorded to life assurance premiums not exceeding £25, where premiums had been paid for at least two years prior to the 4th of August. Unless otherwise directed by an Order in Council, the Act was to remain in force during the continuance of the war and for six subsequent months. Thus, by this date, the stress of exceptional circumstances and conditions imposed by the war was sought to be alleviated in respect of every description of pecuniary obligation.

This is a convenient opportunity to mention the difficulties experienced by our banks: difficulties again, which, if unchecked, continuously aided the supplies of the enemy. Since the commencement of the war, Scandinavia and Holland had been forwarding bills and cheques to London for payment which, it appeared perfectly clear, those countries had received from Berlin. It was abundantly evident, accordingly, that German importers of food and materials from those two countries had paid for these goods by means of bills payable in London, and, except in London impossible of collection. The question, however, assumed a deeper significance, in respect of England being utilised in support generally of the enemy. If Germany discovered that her still existing credits in London could be drawn upon through Scandinavia and Holland, she would be in a position to supply herself with British coal and raw commodities through the same channels. [This position presents a graphic picture of debased neutrality; a so-termed neutral country financing one belligerent at the cost and loss of the other!] Scandinavia and Holland should be allowed, it is true, to import merchandise from England for their own domestic consumption and needs, but if they resell such importations to Germany, Germany should not be permitted to effect the payment for such resales by

depleting British gold resources. [The reader will perceive how inexplicably these two countries posed as neutrals — apparently extracting a double benefit from the war by (1) an enormous profit upon their disposal of British goods to Germany, and (2) without any difficulty as to payment of the price.] The English banks accordingly advised their correspondents in those countries that all cheques and bills endorsed to London by German or Austrian banks would be refused payment. To the ordinary mind, it is perplexing to know why this obvious course was not adopted from the outset.

September.

Although the Stock Exchange was closed, the jobbers met weekly in order to arrange the scale of quotations upon which they should act during the ensuing week irrespective of the supply of, and demand for, securities. These minimum quotations applied to Consols and other investments statutorily permitted to Trustees. It should justly be added that, time after time, the jobbers had declined to sell stocks at lower prices than those already settled by themselves (without, at this time, any compulsion from the Treasury), although frequently, if they had acted otherwise, excellent profits would have been realised, since the securities thus sold could readily have been replaced at substantially reduced prices. But the jobbers remained honourably steadfast to their arrangement, on the ground that the importance was incalculable of maintaining the position of Consols in the interests of national credit and the preservation of public confidence.

September 3rd.

A fresh Proclamation appeared. It began with the recital of the importance of all persons who were able to discharge their liabilities performing that duty without delay. Reference was then made to a Proclamation of the 1st September (which it revoked), and variations of former Proclamations were included as follows: If on the presentation for payment of a bill of exchange which, prior to the 4th September, had been reaccepted under the Proclamation of the 2nd August, that

bill be not paid, then the mentioned Proclamation shall in its application to that bill have effect as if the period of two months had in the Proclamation been substituted for one month, and the amount stated in the form of reacceptance would be deemed to be increased by interest on the bill's original amount for one month, calculated at the bank rate which was current on the date when the bill was so presented for settlement. It was further provided that the Proclamations of the 6th and 12th August should apply to payments which become due on or after the 4th September and before the 4th October in the same way as it applies to sums which became payable after the 6th August and prior to the 4th September.

September 14*th*.

An order issued by the Stock Exchange Committee contained a schedule of minimum prices which had been settled in consultation and conjunction with the Treasury. No member of the Exchange was permitted, whether the Exchange were closed or open, to execute a bargain or negotiate a purchase or sale, whether between members or non-members, in British, Indian and Colonial Government Securities; in the obligations of any County, Corporation, or Public Board; or in any "Trustee" investment, at a less price than the lower of the prices expressed in the published schedule; and, moreover, all bargains (where minimum prices had been fixed) were to be effected on a basis of cash, while time-bargains were expressly prohibited. It appeared that the minimum prices so settled were, in most instances, the same as those which existed on the 30th July. Thus the minimum prices for

Consols were	68½, 69½ [1]
Bank of England Stock	235, 245
India 3½ per cent Stock redeemable in 1931 .	83, 85.

It is simply an admission of all human limitation that the schedule embodied several anomalies in prices as concerned different investments, but no reasonable person can comment

[1] It may be remarked that, on the 19th of June, 1815, the day after the Battle of Waterloo was fought, bargains in Consols (then bearing 3 per cent) were marked on the Exchange at 55¾ and 56.

upon want of complete harmony, dependent, as it was, upon the comparative merits of soundness and prospects of prosperity of various forms of security. [When the Exchange closed, a scale of minimum prices was first fixed, based upon the mean prices of the 27th July 1914: the minimum price of Consols was there placed at $72\frac{1}{2}$.] Later on, the Treasury considered that an immediate reduction of minimum prices was required in the public interests, and sanctioned a revised list in which Consols, *e.g.*, were fixed at $66\frac{1}{2}$.

A practical difficulty then occurred with respect to the values to be placed upon stocks and shares for the purpose of assessing the death duties where holders of securities had meantime died. The Chancellor of the Exchequer stated that the values of stocks and shares must be assumed as the market price which existed upon the last day on which the Stock Exchange was open, with certain qualifications. But it was reasonably retorted that there was in reality no real market price at that time, and the values of the day, prescribed by the Chancellor, could not have been obtained; that in scarcely a single instance could a stock or share have been sold at anything approximating to the current prices then affixed; so that all estates falling in by death while the Stock Exchange prices were admittedly artificial should (it was fairly suggested) be allowed a just discount from the fictitious values of the 30th July. As a consequence of this position, estates were thus incompetent of realisation and distribution; beneficiaries were adversely affected; and detriment accrued to the National Revenue through the deferment of these duties.

October 3rd.

It had already been officially announced (on the 20th of August) that during the present hostilities, the Convention, known as the Declaration of London, should be adopted by Law—a measure, however, which had never previously been ratified by Parliament. As it will be observed hereafter, the consequences of this document (now accepted as Law) had never been subjected to careful thought and foresight, and hence had never been realised to mind. For example, the *Emden* cruiser could have justified its sinking of British

vessels instead of towing them to a port for adjudication. It is just, however, to remark that many modifications in the Declaration which subsequent events demanded could not possibly have occurred to the alertest intellect by reason of the absolute contempt for law and humanity which the infamous practices of German warfare disclosed. This Convention dealt with the question of contraband[1] goods. The term "contraband" involves the question of the nature of the goods which a neutral country (when war is raging) is permitted to convey to one of the belligerents without being liable to capture and forfeiture by the other belligerent. If, *e.g.*, a merchant vessel belonging to a neutral be found to be carrying to a belligerent any instruments and materials which from their nature are usable in the conduct of hostilities, the act is inconsistent with neutrality—the owning country in question is no longer neutral, but is directly aiding the enemy. But the question grows perplexing when other descriptions of commodities are considered, such as coal, iron, timber and food, which may be equally employed for neutral purposes solely. And there is included also the question of indirect contributions to an enemy's resources for the maintenance of the war. The subject should rest upon International Law or a code of recognised rules which should regulate the attitude and actions of countries when war prevails; but so far a very limited amount of accepted doctrine has attended the labours of jurists. In 1856, an important International Agreement was signed at Paris, which has been termed the Declaration of Paris. During the later maritime wars, England had acted upon the rule of capturing the goods of an enemy conveyed in a neutral ship, while the goods of a neutral carried by an enemy's vessel were not, under general circumstances, regarded as a prize of war. Concurrently it had formed the traditional policy of France to confiscate neutral goods discovered in enemies' ships. In

[1] The word "contraband" is an adaptation of the Spanish *contrabanda* (smuggling) adopted from the Italian *contrabando*, "dealings against law or proclamation"; and ultimately derived from the Late Latin, *Bandum*, *Bannum*, where *Bannum* (English *Ban*) is a command or prohibition under threat or penalty.

the Allied war of England and France against Russia in 1854 there thus appeared, under the practices of these two nations, to exist no mode of escape for neutral commerce. This condition naturally created deep perturbation among merchants, so that under the united pressure of neutral governments, England, in March 1854, assented to waive for the time the right of seizing enemies' property laden on board a neutral vessel unless it were contraband of war—that is, *e.g.*, arms and munitions—while France simultaneously agreed that neutral goods carried in an enemy's ship should not be captured and confiscated. At the close of the war, then, the Powers assembled in conference in Paris, and resolved upon a Declaration concerning maritime warfare, which embodied the concessions which have just been described. In April 1856, this declaration was accepted by Great Britain, France, Austria, Prussia, Russia, and other countries. The main provisions (for our purpose) show that the neutral flag protects an enemy's goods with the exception of contraband of war: and that neutral goods, with the exclusion of contraband of war, are exempt from capture under an enemy's flag. Many weighty objections were urged in England against our acceptance of the Rule which became designated as "Free ships, free goods." And the judgment was expressed that while Great Britain remained neutral, her commerce and carrying trade were affected favourably by the Declaration, while, if this country should become involved in a great maritime war, the immense volume of our imports and exports would furnish a signally vulnerable mark for the cruisers of an enemy which would seek safety for its own trade under neutral flags. The prophetic gift lay in this forecast of sixty years ago.

To resume our narration of the Declaration of London. This Declaration was the result of a conference held in London, on the invitation of the British Government, in 1908 and 1909, upon the laws and customs appertaining to naval warfare. On the subject of contraband of war, the Declaration specified three lists of articles, namely, (1) absolute contraband, (2) conditional contraband, and (3) articles which may not be declared contraband. *Absolute Contraband* (No. 1) included articles which were exclusively employed for purposes of war,

such as rifles and ammunition. These were to be liable to capture by a belligerent if their destination could be shown to be territory belonging to, or occupied by, the enemy, or to be in aid of the armed forces of the enemy. And this practice remained unaffected whether the goods were conveyed direct to the enemy's territory in the vessel in which they were discovered, or whether they were to be transhipped or to be landed at a neutral port for conveyance overland to their hostile destination. *Conditional Contraband* (No. 2) comprised articles which were susceptible of either warlike or peaceful service. Such articles become contraband if they were destined for the armed forces or for a government department of an enemy; but they were excluded from contraband if intended for the civil population of the belligerent country. The most essential of such articles from our point of view were obviously food-stuffs. Conditional contraband was not subject to capture except when found on board a vessel actually bound for an enemy's territory or for his armed forces, and when it was not to be discharged at an intervening neutral port. The Declaration introduced (No. 3) a *Free List*, *i.e.* a number of articles which might not in any case be declared contraband.

It had hitherto been the practice, it may be interpolated, of the nations of Europe, when war had been declared, to publish lists of articles which they would regard as absolute or conditional contraband, and to vary these lists from time to time. Now, unhappily, the original Declaration of London —[never before, remember, ratified by Parliament, but now, for the first time (in August 1914), adopted by our Government as its guide]—specified in its *free* schedule the article of *metallic ores*, which might accordingly be conveyed freely to and from the ports of belligerents in neutral vessels. Our official adoption of this Declaration was unilateral only (as it is termed) and was not a ratification of the Declaration itself—being thus a declaration simply of Great Britain's views upon the subject. Hence no mutual contract with other countries was involved: still the remembrance of the primary contents of that Declaration remained in the minds of neutrals.

[The occasion of this position thus happened: the former Government of the day (when the Declaration had been framed

upon the Conference of 1908 and 1909) had undertaken that it would not ratify—and thus render binding as a matter of treaty-obligation—the submitted Declaration until Parliament had amply discussed its provisions. Concurrently with the presentation of the Declaration to Parliament, a Naval Prize Bill was also proposed (as a section of the general scheme recommended), and as this Bill was rejected by the House of Lords in December 1911—since it was felt there that its passage would have resulted in the ratification of the Declaration—a legislative acceptance of the main document never then occurred.]

One month subsequent to the adoption by Government of the Declaration as already mentioned (*i.e.* subsequent to the 20th of August 1914), a proclamation was issued containing additions to the schedule of contraband articles furnished in the document itself, and among these additions were various descriptions of iron ore. It is obvious, on ordinary business grounds, and not as the result of actual experience of the working of the Declaration, that in our first announcement of adoption we should have made provision for any later modifications by inserting a clause in the Proclamation of Adoption that the official acceptance of the Declaration was subject to any subsequent amendments which might be found to be necessary in our national interests. This precaution, unfortunately, did not occur to the officials who prepared the proclamation and apparently revealed grave negligence in our Foreign Office. Indeed, in the original framing of the Declaration itself, the possibility of Great Britain ever becoming a belligerent (involving the essential question of our importation of food) seems disastrously to have been overlooked. It appears to have been only upon the 21st of September 1914, that the Foreign Office perceived the importance of copper, lead, rubber and iron ore to the enemy and transferred them and other articles from the free list to the conditional contraband schedule. Two subsequent Proclamations were published with emendations of the Declaration: one revising the original catalogue of absolute and conditional contraband; the other introducing additional modifications of its contents. The altered lists of contraband were—

(*a*) *Absolute* contraband to include (*inter alia*) arms, projectiles, powder and explosives, sulphuric acid, gun-equipments, military clothing, copper, lead, barbed wire, warships, aeroplanes and rubber. [In the Declaration itself, rubber was stated to be free.] The list of absolute contraband was thus substantially enlarged.

(*b*) *Conditional* contraband embraced (*inter alia*) food-stuffs, forage for animals, clothes, vessels and craft, and hides. [The Declaration had made raw hides free.] In the second Proclamation, the Declaration was reaffirmed subject to such modifications as these: namely, the liability of conditional contraband to capture if on board of a vessel bound for neutral ports where the goods were consigned "to order" (since obviously, this would permit direct transmission for the enemy's use); or if a ship's papers failed to disclose the name of the consignee, or if they showed a consignee in territory either belonging to, or occupied by, the enemy—the primary object being to prevent the enemy from deriving supplies for hostile purposes from or through neutral countries. It should be explained that the term absolute (or unconditional), applied to contraband, signified materials of direct application in naval or military armaments, while the qualification of "conditional" attached to articles which were fit for, but not necessarily of direct application to, hostile service: to articles, that is to say, which were susceptible of use in war, as well as for pacific purposes, such as foods, forage, clothes, vessels and craft. It will at once be perceived what a fertile ground the interpretation of these terms provided for differences of judgment, and disputes. The removal of iron ore by Proclamation from the free list contained in the original declaration to the contraband schedule created great offence in Sweden, while America objected to our conceptions of International Law, and vigorously bewailed the commercial losses which our modifications entailed upon the industries of that country. In short, the study of the construction of the Declaration and of the several proclamations fails to furnish happy reading or to impress us with any sense of sagacity or prevision in the original framers. It is obvious that the question of contraband—in respect equally of the prolongation

of the war, the destruction of life and treasure, the promptest relief or removal of abnormal financial conditions, and the reconstruction of commerce upon a customary basis—was of the intensest significance for this country in our possession of a power of searching neutral vessels for discovery of the presumed conveyance of goods intended for the enemy's service, and their seizure. A few examples which occurred during this contest may be cited. Taking the article of copper (essential to the manufacture of munitions) it was ascertained from official statistics that the exportation of this metal from the United States during the months of September and October, 1914, and during the same months in 1913, was as follows:—

	lbs. 1913	lbs. 1914
1. To Italy (before her union with the Allies)[1]	6,800,000	25,000,000
2. To Holland	1,300,000	12,200,000
3. To Norway	none	8,200,000
4. To Sweden	2,800,000	6,700,000

The conclusion is instant. These so-termed neutral countries had not imported this vast accession of copper for domestic uses, but for the purpose of re-exporting it at a substantial profit, to Germany and Austria; that is to say, the copper capitalists in America, acting through their agents in neutral lands, were supplying Germany with this ore which was impossible of direct importation. The American people admitted copper to be rightly declared by us to be contraband: was there not then superabundant justification, in these enormous increases of a prohibited article, of our paramount right of self-protection by search and seizure? England did not place cotton on the contraband list, though it forms an element in the manufacture of a powerful explosive. Yet we found (as America admitted) that professedly-exclusive cotton cargoes were surreptitiously used to conceal copper within the bales! It was ascertained that these copper magnates calcu-

[1] Although Italy was entangled with Germany through the Triple Alliance, and her trade intimately associated with Germany, she yet virtually continued neutral until her union with the Allies in May, 1915.

lated that if they succeeded in getting through only 30 per cent of their copper shipments for Germany a handsome profit would remain.

Another illustration of this indirect contribution to Germany's necessities may well be recorded—the increase in the cost of tea, an article of conditional contraband. In September 1913, England exported to Holland 110,000 lbs. of tea; in September 1914, 687,000 lbs. Did the stolid Dutchman, fearful of entering this strife for righteousness and freedom, require to drink six cups of tea for steadying his tremulous nerves in September 1914, for every cup he drained in the same month of the preceding year? *Credat Judæus Apella!* Each additional pound of tea implied a substantial profit by the resale to Germany, though thousands of gallant men were being slain and wounded for the achievement of an end which ultimately defended these neutral nations themselves from base servitude to a base oppressor. I take just pride in our contrasted attitude and character. We held to the principle of avoiding interference with the trade of neutrals unless it were imperative in the preservation of our national safety—which it is not arrogance to assert is synonymous with the safety of the world: the principle of intervening simply when such intervention concerned—not legitimate trade between neutral countries themselves, but—a trade in contraband which was destined for the enemy's benefit; the principle of adopting such modes of procedure in such instances as would entail the minimum of inconvenience and delay upon neutral shipping consistent with the vital object in view. It might fail in magnanimity—since America subsequently enlisted in the righteous cause of civilisation—to dwell in detail upon the earlier complaints of her merchants and industries upon the just course which we pursued, but it is simple justice to record the historic fact that when, during the American Civil War of 1861, President Lincoln blockaded the southern ports of America, and thus completely barred the export of cotton to our shores, the manufactories of Lancashire were rendered desolate; the suffering and anguish entailed upon our workers were intense and prolonged: yet no cry rang out from England to stay the extinction of our cotton industry resulting from the

President's act. Possibly, all nations, after this tragic interlude, may become exalted into a more generous sympathy, and may practically and genuinely accept the teaching that in a universal brotherhood—which the world should constitute—every member must patiently and gladly aid each afflicted brother to bear his cross. My practical judgment is—although the act itself presents the brighter and more benignant aspect—that our statesmen, in so profound a national crisis, were too deferential to the remonstrances of neutrals, founded, as these were, upon the selfishness of profitable trade. In November a minimum price was removed from Consols and some other securities with the result that Consols fell from its artificial value of 65 down to 57. It was evident that every minimum price (since it in no degree whatever represented actual value) should disappear for the purpose of ascertaining the genuine market-worth—through the index of unfettered purchases and sales—of our investments, and for the additional reason that the estates of dead holders were rendered incompetent of realisation, and death duties thus delayed when every shilling was important in our national need of funds. For, obviously, no buyers could be found to offer the high fictitious prices which the minimum schedule imposed. It may as well be mentioned here that, on the 4th January, 1915, the Stock Exchange reopened as the result of deliberation between the Committee and the Treasury. But this event was to be attended by restrictions with the object of protecting the London market against forced realisations of securities; preventing speculative operations designed to depress prices; and closing the different markets to the enemy directly and indirectly. The Committee decided that the minimum prices which had been fixed while the Stock Exchange was closed should be retained in force until the end of July; then to be subject to such revision as might be deemed expedient, but every reduction was to receive the Treasury's approval; and while this restriction remained, no member was to be allowed to enter into a bargain or negotiate any purchase or sale, whether between members or non-members, at a less price than the lower of the two prices quoted in the minimum scale. All bargains were to be for cash, and could not be continued from day to day; more-

over, every bargain must be marked and officially recorded. [In ordinary times, the last requirement is not operative.] It may at once be added that minimum prices were abolished gradually, and finally extinguished on the 3rd of July 1915.

I have now completed the task which I designed. The Defence of the Realm Act is not comprised within the scope of my purpose; but I should have recorded, in their places, the State prohibition of the export of coal except to British Dominions and Protectorates and Allies; the rule against the use of coal and petrol (needful for the Fleet and Army) by the avoidance of unnecessary travelling; orders for economy in the consumption of food for the conservation of our stocks; the State Insurance scheme of compensation for destruction of property by hostile aircraft: the lavish and wasteful expenditure by Government upon works and wages attributable to official industrial ignorance and incompetent methods; and here in more detail I may note the profits of certain trades. Both Wellington and Napoleon placed largely the success in war upon excellent boots, and although the modern system of warfare is void of the long marches of former days, our shoe industry was very materially augmented by orders from ourselves and our allies; clothing houses flourished; considerable profits were naturally realised in shipping; milling (food) showed double their profits in 1914/ 1915 of those of 1911/ 1912; ammunition and explosive manufactories expanded to most successful results: *e.g.* the profits of Kynoch (ammunitions) were double those of 1911, while Thornycrofts (engineers) exhibited trading profits in 1915 of £267,000, compared with £15,000 in 1914 and £47,000 in 1913.

The Moratorium expired on the 4th October for bills of exchange (other than cheques or bills on demand): and debts due to and from retail traders in connection with their businesses; while other deferred debts were further postponed until the 4th November subject meantime to payment of interest.

All occurrences during the war, as I have remarked, possess a definite relation to Finance: many have left an impress and saddened memory, which happier times and a larger spirit will, I trust, speedily see effaced, and be followed by a renovated

spring of judgment and action through the discipline of a purifying past. I submit a few concluding observations associated with Finance, and in this summary retrospect I earnestly seek to bear steadily and patiently in mind the abnormal contingencies and conditions which human fallibility and unpreparedness were suddenly compelled to face. In arrangements connected with the financial machinery of commerce and trade, the Government, generally speaking, happily stepped beyond their charmed and cloistral circle, and sought and utilised, from bankers and merchants, their cultivated acumen and intimate acquaintance with the actual needs and methods of business life. So far as they pursued this common-sense course—though too frequently in a fragmentary fashion — rational procedure ensued. The general civil government of the country equally involved the problems of Finance as dependent upon adequate systems of organisation and effective economy. And here encomium largely and abruptly vanishes. I can only make passing allusion to this aspect: (1) The absence of definite and considered plans of civil management and their methodic and consistent execution; the omission, again, of vigilant and incessant control; and the consequent haphazard character of many most important movements, with the deficiency of co-ordination and harmonious unity in the several departments and their combined duties. (2) Organisation, *e. g.*, was largely casual and thoughtless. The perception of Proportion had constantly disappeared; and from the zenith to the nadir of civil government, all spectators of any business capacity perceived the resulting defects in unity of purpose and directness of toil. Fussiness and restlessness of movement were mistaken for planned and ordered energy. Chiefs of departments followed chiefs in disastrous fall; and often indeed a marvellous ingenuity of irrelevance was displayed. I take two examples out of a mass in the domain of National Service: an analytical chemist of great promise was converted into a cook's mate and a loader of trolleys: I myself—and the aptness of the illustration will avert any charge of immodesty—having, from special circumstances, enjoyed an exceptional training in Finance for thirty years, offered my services in that capacity to

the Government, free from a shilling of expense, in order to devise methods, either at our base in France or at home, for avoiding the egregious and profitless loss to the country of commodities and money obvious to the most vagrant eye. The response was an extensive packet of returns from small shopkeepers whose figures I was required to tabulate—a task which an ordinary school-girl could fairly have undertaken. And I heard no more. It seemed never to occur to the official mind that a waste of specialised energy was a waste of national aid. (3) The expenditure of the Government was profligate, disastrous, and vicious. The effective and unsleeping oversight of disbursements is the foundation of prosperity, character, and the accomplishment of aims. Lavish and unchecked outlay is not only attended by approximate or real ruin and malversation in its particular direction, but also tends to render impotent the achievement of the remaining purposes of a general scheme. Its pernicious effect, again, upon character and provident habit is incalculable. Thrift so profoundly is the basis of social and civic qualities that no nation can fulfil in any just degree a righteous destiny without this ingrained virtue. But how could this habit be cultivated among the people when the Government presented this flagrant example? Where was the force of appealing to the citizens for self-restraint in expenditure when their rates and taxes exacted were so shamefully misspent? And, involving this aspect (and generally) in the people, I would also remark that —with, happily, many notable and laudable exceptions—I sorrowfully observed the large want of earnestness of spirit in men, a failure in the sense of the reality of life and of personal responsibility: qualities which not even the solemn experiences of the war had stimulated into sensitive activity. Too frequently I found that, when the recurrence of Peace was named, people dwelt mainly upon the fulfilment of their individual hopes of benefit or of the expectations of their class. (4) Bearing upon the general question here considered, I advert to the tragic intrusion of industrial strikes, to whomsoever due, while the brethren of the workers were in the agony of the fight; and the shameless extraction of a traitorous personal profit, by the execrable miscreants who were termed

"profiteers," from the needs and sorrows of their fellow-citizens both on the field, the sea, and at home.

Although I had here concluded my designed history, I am tempted to continue, for the purpose of describing the instructive and interesting measures for rectifying the monetary Exchange with America. In a former part of this chapter I adverted to the New York Rate of Exchange and the high price required to be paid in that market in dollars to acquire a claim to £1 in London.[1] During the progress of the war, a reverse position occurred: on the 24th of July 1914, *e.g.*, the cable sterling rate on London was 4·88¼ dollars per £1, while on the 23rd July 1915, it had become depressed to 4·77¼ dollars, and on about the 3rd September the fall had reached 4·63 dollars.[2] The descent was consequent upon our inability to discharge, by exports, our immense imports from the United States of war materials. Gold shipments and the sales of American securities held by British owners had been proved insufficient to maintain the Exchange at a more satisfactory level to ourselves. It will thus be observed that since we purchase these materials from the United States at dollar prices, how seriously (when we remember the vast extent of the purchases) this country was

[1] The rate of exchange in the country A for cheques on the country B must correspond, or tend to correspond, with the rate of exchange in B for cheques upon A. Thus, if cheques on B stand at 1 per cent discount in A, cheques on A must be at 1 per cent premium in B, or, in other words, if 99 units of A's currency are equal in value for the time being to 100 units of B's currency, then 101 units of B's currency will approximately equal 100 units of A's currency:

$$\begin{array}{ccccccc} \text{A} & & \text{B} & & \text{A} & & \text{B} \\ (99 & : & 100 & :: & 100 & : & x \end{array}$$
$$\text{and } x = 101)$$

[2] Consider the adverse condition to England here indicated, as showing on the date last mentioned, the value of a cheque for £100 in New York:—

The Mint par is	4·86½ dollars per £1;
The rate of exchange considered is ·	4·63 dollars per £1.

There is thus a fall of $\frac{23\frac{1}{2}}{100}$ of one dollar per £1: assuming the dollar to be worth 49⅓*d*, the loss on £100 is about £4 16*s*.: that is, the actual value of £100 rendered in New York would now be about £95, or a depreciation or discount of the sovereign, expressed in the New York rate, of about 5 per cent.

financially oppressed by the increased number of sovereigns that were required to place in New York a stated amount in dollars—a grave and unprecedented discount of the British pound expressed in dollars. The fundamental fact, of course, was the balance of trade then existing against England; the imports largely exceeding the exports, and thus the enormous sums which we owed to America for imports compared with the extent of the counteracting amounts which we could claim from that country for our exportations; or, embodying the situation in the usual form, the bills of exchange upon New York available (in purchase) for liquidation of British exports were vastly sparser than those drawn upon London in satisfaction of exports from America. When generally the Exchange has turned against England—*i. e.* when a less amount of foreign money forms the temporary equivalent of £1—our remedy consisted in an increase of the bank rate of discount (and consequently the production of a higher return upon capital lent in London), so that merchants, banks, and capitalists in various parts of the world might despatch funds for employment here —thus inducing foreigners to diminish their obligations to London and hence to maintain or replenish our stock of gold— by the attraction of a larger rate of interest than was obtainable in other markets of finance. But this remedy was unavailable now: we were no longer lending money in the normal business way to foreign (including American) customers, nor purchasing foreign investments, where the interest yielded by such advances and purchases could be utilised to defray the cost of our imports; nor were we exporting extensively (and thus adequately paying for imports), since vast numbers of our industrial classes had been abstracted from their customary manufacturing work and transferred either to the Army or to munition factories; and, finally, the war demanded continued and enlarging importations in the form of military equipments and food for the effective service of our forces. Thus, on both sides of the account with America, were we constrained to the condition of owing considerably more to the United States than we could claim from her, with the necessary fall (reflecting that situation) in the rate of exchange upon London. There were obviously four methods which might be employed

in reducing this augmenting debt and the grave financial burdens which it imposed upon our commerce and resources. Problems in general finance frequently receive an illuminating aid of perception and decision by considering the position in an individual case, since a people is simply a collection of persons. If I owe money to B, I can reduce the debt (or make provision for its gradual diminution) by (1) ceasing to indulge in luxuries and (2) by exercising economy in my customary expenditure upon eating and drinking—largely effected by my scrupulous avoidance of waste. The saving in expense which I gain in these two modes forms an increasing fund for liquidation of my indebtedness; and the precise analogues in national need are the restriction of the importation of luxuries and dispensable goods, and of the necessaries of life. I may also (3) assist the redemption of my debt by working longer hours or obtaining additional employment and applying my increased earnings to my purpose; the national analogue here being an augmentation in the production of commodities and their export, seriously frustrated, however, as I have stated, by the thoughtless depletion of our manufactories of workers for army service. Or (4) if I possess an investment, I can sell it to my creditor in diminution or final discharge of my balance. Or lastly (5) it may be worth my while to borrow from a friend, if reasonable terms can be arranged, for the same end. Thus, as it was undesirable to ship gold in large quantities on account of the special dangers at sea (to omit any other reason), and seeing that enhanced production of commodities was impracticable through the State's improvident procedure already noted, the Government possessed the following courses in dealing with the situation: (*a*) by reducing public waste of money (which the State, unhappily, by its own profuse and unregulated expenditure rather stimulated by example than repressed); (*b*) by compelling economy in the consumption of food and goods; (*c*) by influencing British holders of American securities to dispose of them to the Government for application in diminution of our adverse balance; (*d*) by strenuous efforts to defray the military expenses chiefly out of national income whatever inconveniences might be involved; and (*e*) by contracting a debt abroad upon terms which were consonant with our supreme

and unblemished credit in the world. As regards the remedy (*a*) the Departments of State themselves showed minor diligence in this respect, and their example neutralised their public precepts; with respect to (*b*) some measures were tardily introduced though far from effective; as regards (*c*) the Government adopted action and large masses of American securities (subject to the penalty of increased taxation thereon if this course were not pursued) were sold to the State by British investors at a loss, and appropriated to the partial settlement of our trade account—forming thus an invisible export in part payment of our imports. With reference to (*e*) British investors were requested to deposit specified securities (such as Canadian stocks) with the Government (in consideration of a small increase of the rate of interest which those securities carried) to be transferred to the United States as security for an extensive advance to England from that country. This deposit, of course, involved a formal power of sale should default in repayment occur; but this power was clearly negligible on our part, since the execution of the right would be coincident with the extinction of Great Britain—with, indeed, the submergence of the civilised world. An Anglo-French Commission was despatched to Washington with the object of raising this loan; and ultimately, towards the close of September, 1915, the advance to Great Britain and France was concluded, and its amount applied in payment for Allied imports and the consequent rectification of the Exchange to a level approximating to its normal state. The loan was issued to the American public at 98 per cent: the price to the two Allies was nearly 7 per cent per annum, free from British taxation; and the advance was redeemable at par at the expiration of five years. The Bonds were expressed in dollars—the amount being $850,000,000.

It was the general judgment of experts in finance that more satisfactory terms would have been secured had the loan been offered—not to America alone, but—to the entire neutral world (including the United States) with this attractive condition of exemption from British income-tax at the present high rate. And particularly was it justly urged that, contracted, as it was with America, our annual charge for the advance would have proved much lighter had the loan been

arranged some months earlier when the Exchanges first presented weakness.

Happily, however, the onerous terms, upon which the advance was contracted, neither exhibited nor suggested any decline of our national credit since, in reality, the arrangement expressed not the raising of a loan but simply an operation in exchanges for the purpose of meeting an exceptional condition upon that sole point.

I have mentioned certain rates of American Exchange which recently occurred, and I now add that, on the 1st of October, 1915, taking the case of cable transfers, the rate on London had improved to $4 \cdot 72\frac{1}{4}$ while, with intermediate variations, consequent on the changing extent of our imports of munitions, it stood at $4 \cdot 70\frac{3}{4}$ on the 3rd of December 1915.

A practical epilogue is a fitting pendant to a practical volume on Finance. An impartial survey conclusively suggests an enduring lesson upon the constitution and administration of our form of government. The principles and practice of morality, from its inherent nature, are precisely identical whether they be exercised by an individual or by an aggregate of individuals: in a similar way and by a similar necessity, continuity of expansion and the development, in amplest measure, of the vast capabilities and character of our nation are solely competent of achievement by the modes of supervision and execution which alone conduct a private or public commercial house to prosperous issues. The war, to all thoughtful minds, has rudely—and, I trust, finally—shattered our traditional conceptions and forms of government. Our stable and renowned mercantile institutions furnish at once the model for reconstructed methods of Imperial Rule, and the sole prophecy of genuinely enduring and propitious national results. For, in them, there intrude no party or sectional interests and jealousies; co-ordination and harmony of aim and action are permanently organic; no lurking place is discoverable to incompetence or waste; fitness of position and man rests on the criterion alone of trained and specialised knowledge and experience in practical affairs, through direct contact with the realities of life—rank and social status, university distinctions and aptitude in professional niceties,

being utterly submerged beneath this dominant test—alertness of outlook, with precision and swiftness of change of plan as varying aspects and conditions arrive; and pervading, as an omnipresent spirit, the organised system of administration, a unity of management converged upon the accomplishment of the Common End in the most finished and effective form.

In this fashion must our Rule of State now be reconstituted, and a foundation thus be built which, with the ease of spontaneous power, shall scatter into fruitless failure every threatening wave of vicissitude and strain.

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PRINTED IN GREAT BRITAIN BY RICHARD CLAY & SONS, LIMITED.
BRUNSWICK ST., STAMFORD ST., S.E. I, AND BUNGAY, SUFFOLK.